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THE WHOLESOME WOMAN

by

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Chicago
The Athenaeum Publishing House
1902

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PART I

SEX AND LIFE

THE MYSTERY OF NATURE AND THE GLORY OF CREATION.

"This sublime vision comes to the pure and simple soul in a clean and chaste body."—EMERSON.

PART I.

CHAPTER I.

The Vital Principle of Life.

THE perpetuity of any species is dependent upon the power of each individual of the class to transmit life. This power is received through sex, which is to be seen everywhere in the domain of nature among creatures which live, move and have being, and in vegetation which blossoms and brings forth each after its kind. Types may vary according to the environment in which they have been placed, but the scientist can trace each to the source from which it sprang.

Biology, the broad science which comprehends the phenomena manifested by *living* matter, elaborates on the continuance of life by transmission to offspring. In the lowest form of life the only mode of generation now known is the division of the body into two or more parts, each of which grows to the size and assumes the form of its parent and repeats the process of multiplication. This method of multiplication by *fission* is properly called generation because the parts which are separated are severally competent to give rise to individual organisms of the same nature as that from which they arose.

In the higher forms, life is reproduced by a union of parents of different sexes. This is *gamo-genesis;* the other is *agamo-genesis.*

Sex is not substance. It is a power pervading the realm of living things, and is known through its manifestations. While

all organisms are provided with the means of reproduction, the *means* are not the thing itself.

In the human family children are born male and female often of the same parents. Why is not clearly defined. Some observers state that good conditions, tending even toward voluptuousness, produce females; and vice versa: a theory in confirmation of Mother Goose's jingle:

"Little boys are made of rags, tags, and old pudding bags;
Little girls are made of sugar and spice, and everything nice."

By whatever combination of prenatal circumstances they are sexed, babes are usually born with either the masculine or feminine principle clearly defined.

In "True Manhood" are found these words:

"The soul is the man. If possessed of the masculine attribute he appropriates to this end the substances he eats and the air he breathes. He transforms them by this principle into a male body. A soul having the feminine principle transforms these substances into a female body. The ovaries of the female as well as the testes of the male are organizers, but they produce unlike results from the same material.

"The physical manifestations of sex in face, form and voice are the outward signs of an inward power."

All creative ability has its origin in the sex nature. New and useful conceptions of the brain are applauded, although the generality of our race and clime do not know the source.

The Sexual Instinct.

Mr. Grant Allen, who in his lifetime was a student and thinker, said: "Everything high and ennobling in our nature springs directly out of the sexual instinct. Its alliance is wholly with whatever is purest and most beautiful within us. To it we owe our brightest colors, graceful form and melodious

sound, rhythmical motion. To it we owe the evolution of music, of poetry, of romance, of *belles lettres;* the evolution of sculpture, of decorative art, of dramatic entertainment. To it we owe the entire existence of our æsthetic sense, which is, in the last resort, a secondary sexual attribute. From it springs the love of beauty; around it all beautiful arts still circle as their center. Its subtle aroma pervades all literature. And to it, too, we owe the paternal and maternal and marital relations; the growth of the affections; the love of little pattering feet and baby laughter; the home with all the associations that cluster around it; in one word, the heart and all that is best in it.

"If we look around among the inferior animals, we shall see that germs of everything which is best in humanity took their rise with them in the sexual instinct. The song of the nightingale, or of Shelley's skylark, is a song that has been acquired by the bird himself to charm the ears of his attentive partner. The chirp of the cricket, the cheerful note of the grasshopper, the twittering of the sparrow, the pleasant caw of the rookery—all these, as Darwin showed, are direct products of sexual selection. Every pleasant sound that greets our ears from hedge or copse in a summer walk has the self-same origin. If we were to take away from the country the music conferred upon it by the sense of sex we should have taken away every vocal charm it possesses save the murmuring of brooks and the whispering of breezes through the leaves. No thrush, no blackbird, no linnet would be left us; no rattle of the night-jar over the twilight fields; no chirp of insect, no chatter of tree-frog, no cry of cuckoo from the leafy covert. The whippoorwill and the bobolink would be as mute as the serpent. Every beautiful voice in wild nature from the mocking-bird to the cicada is, in essence, a love-call; and without such love-calls the music of the fields would be mute, the forest would be silent."

Throughout the domain of nature the instinct of sex is paramount. In the lower kingdom of life the instinct, pure and undefiled, is followed. In the human family the instinct is subject to the modifications of civilization; which, alas, is not always for the best. And lives are colored by the thoughts of sex, which may be any of the varying shades between good and bad. Asceticism on one hand strives to suppress all thoughts and feelings regarding the relation of the sexes as impure. Those who are so narrow as to conform to the letter while lacking the spirit of true religion may be cited as the most baneful of combatants of pure thought on the subject. Suspecting evil with a large E, they become the self-constituted guardians of public and private morals. Kipling remarks it in one of his "Tales." He says: "You have noticed that many religious people are deeply suspicious. They seem—for purely religious purposes, of course—to know more about iniquity than the Unregenerate. Perhaps they were specially bad before they were converted! At any rate, in the imputation of things evil and in putting the worst construction on things innocent, a certain type of good people may be trusted to surpass all others." Their perverted understanding, or lack of understanding, distorts and discolors much with which they come in contact. Seeking for the unlovely, the good, the true, the beautiful is lost to view.

On the other hand is the unchaste, immoral sensualist, who believes that life means gratification of the senses, the most exquisite of which is in the sexual relation. He drains the wine of life to the dregs, and when at last sated can see nothing of the true use of bodily senses. The extremes exist because they do not know the truth.

The Training of Youth.

As to the training of youth, Prof. David Starr Jordan says: "The ultimate end of science as well as its initial impulse is the regulation of human conduct. To make right action possible and prevalent is the function of science. The world as it is is its province. In proportion as we conform to the conditions of the world as it is, do we find the world beautiful, glorious, divine. The truth of the 'world as it is' must be the ultimate inspiration of art, poetry and religion. The world as many have agreed to say it is, is quite another matter. The less our children hear of this the less they will have to unlearn in their future development.

"By the study of realities wisdom is built up. In the relations of objects he can touch and move, the child comes to find the limitation of his powers, the laws which govern phenomena, and to which his actions must be in obedience. So long as he deals with realities these laws stand in their proper relation.

"It is clear that the knowledge is of most worth which can be most directly wrought into the fabric of our lives. That discipline is most valuable which will best serve us in quietly unfolding our own individualities."

Applying Prof. Jordan's words to understanding what is really true of the sex nature, the same law holds in force; the relation of that department of human nature to other departments must be known and the law obeyed if one would find life glorious, divine, beautiful.

Manifestation of the sex principle in the human family is not noticeable until the beginning of puberty, the average age for which is about fourteen years. In the boy, the bony framework enlarges, the shoulders broaden, the chest expands, and the voice deepens. He bears within his being the creative

impulse, for the first time. If properly instructed, creative force will be turned into the channel of energy and vigor; if not, the probabilities are that the instinct will revert to the type as seen in many of the lower animals.

The changes of puberty are as pronounced in the healthy girl as in the healthy boy. Bodily enlargement is most noticeable at the hips; the framework increases in size to permit of enlargement of the ovaries and uterus. In sympathy with these the mammary glands, or breasts, enlarge. The mental changes are as remarkable; life assumes more pleasing proportions as the period of adolescence is ushered in.

Safety in Knowledge Only.

Knowing that the voice of passion will speak to every normal child, none are worthy of the name of parent who will not by every known method instruct their children. "If sharp tools were of necessity," says a modern thinker, "to be put into the hands of a child, we should realize that instruction in the wise use of them would be needed; and, if by ignorance the child were injured, we should blame ourselves more than we should him. The powers that come with the development of maturity, unless understood, are more dangerous than the sharpest razor, but the tacit teaching of society is that parents and teachers must keep silent and leave the child to learn by his own experience, and also to suffer the results of his own ignorance."

In its unperverted aspect, the prompting of passion is the prompting to create; it is a great impelling force needing guidance. Of the many ways of expressing this power that of the physical union of the sexes is to be used the least; because of the intensity of feeling, great inroads are thus made upon the vitality of the body, consuming what might be used in making the most of life's possibilities. The haphazard generation of

offspring is what the world least stands in need of, and procreation is always attended by waste in parental energy.

It is part of the great plan of nature that the sexes shall be attractive to each other. "Either sex alone is half itself," says Tennyson. And "love is the fulfillment of the law," says an older volume. Companionship between the sexes is necessary to preserve an equilibrium. Those who are isolated are those who know least how to control the attraction toward the opposite sex. Hence comradery should be cultivated; comradery as human beings, however, not as representatives of opposite sexes.

When the time for marriage shall arrive, again there is need of the counsel of wise and loving friends, and good books. The *realities* of what the relation may mean should be made as clear as possible. The interested parties should learn the important lesson that control of the animal propensity and diverting the impelling force into other creative channels are more necessary after marriage than before, for the good of all concerned. The removal of all barriers to full and free intimacy would not mean license to unlimited sexual gratification if youth was properly instructed. "Life is harmony and health," writes a correspondent to one of the progressive journals. "There is harmonious expression for every natural impulse of life. Life is creative. To be filled with life is to be filled with creative desire. Every thought and every feeling is vitalized within this creative life. Life has endless variety; it creates in myriad ways. This variety is in man because life is in him. The world is filled with his creations, and still his creations are multiplying. Every human being feels an impulse to create in a way peculiar to himself, and ever longs until his desire is fulfilled.

"Now, when a human being develops from childhood into

youth, and feels the influx of a larger life in heart, in mind, in body, is he—or she—told, this is life impelling you to use it in creating beautiful and useful works for the help and happiness of your brothers and sisters? Life is love—and love desires to give itself and to create freely.

"No, he is told this new sensation is the animal passion which develops in all animals. It is the desire of the animal for sexual union with its own species; and its use is the perpetuation of the species; you will never find satisfaction and relief except in the fulfillment of this desire.

"Then begins the concentration of thought upon the sensation of life, and locating it in one part of the body. From henceforth every new influx of life is determined here, instead of being distributed through the whole body, as it would naturally be if the thought was not trained to prevent it. This causes congestion in place of free circulation, and inflammation in place of delightful sensation; and there is more or less uncontrollable desire for expression in one direction, instead of grand desires in many directions. While passion is being cultivated, the youth is also taught that this desire of the physical cannot be gratified except he secures a permit that is made legal, and marry one of the opposite sex."

Recapitulating the average life, "as men have agreed to say it is," it can be readily seen that the scant teaching the young receive regarding the development of life tends to make of marriage a state of unlimited debauchery, where self-control is thrown away. Why wonder at the few comparatively happy unions when it is only by chance that any have learned the beneficence of creative life, or the powers of sex. Outside of marriage sexual indulgence is regarded as degrading. Through what chemistry does wrong become right by legal enactment? Laws are supposed to bind people together for

sake of offspring, because offspring are believed to be the necessary consequence of physical intimacy. Heaven pity the pair whose only tie is the legal one, and pity the offspring of such unions!

Comradery, mutual interest, equality and reciprocal affection are the true binding forces, which no law can sever, nor generate if they do not exist. These are enhanced by conjugal intimacy of the nature that does not exhaust. "Conservation of power is both possible and effective for the unmarried; and through love, training and self-control, marriage may be consummated in such manner that not only is the same conservatism and appropriation attained, but, by the union of the spiritual forces of two souls, it is greatly augmented."—*Karezza.*

Completeness is never attained by man alone, or by woman alone. The eternal feminine complements the eternal masculine. Mutual love and tenderness leading up to a final complete blending of physical and spiritual natures generates a binding attractiveness that will not be set aside lightly.

A dramatic critic, in reply to the moralist (described by Kipling) who criticised the stage, remarks: "They (the aggressive moralists) will say, 'How do you account for the fact that a play in which there is exhibited pronounced sexuality or scenes of excessive passion or abnormal characters such as courtesans, strong-willed self-helpers, or even perverted beings, attract large audiences? How do you explain the fact that if a play contains what are described as *naughty* episodes, or *suggestive* scenes, it is pretty sure to be successful?'

"Now to these two pertinent questions I am not going to give the reply of the ordinary aggressive moralist, that human nature is evil and naturally turns to evil. This answer is neither real, true, nor philosophic. The real answer is parallel to the answer we must give to the question, Why do all men

and women secretly enjoy naughty stories, especially those dealing with indelicate subjects? Because these things are fundamentally of the first importance to the affirmation of life and its continuance."

It is not true, however, that ALL men and women enjoy "naughty" stories. The ascetic who truly believes the passion of the body to be vile shrinks from vileness. On the other hand, all who have learned to reverence the creative department or life are hurt and offended by common jesting or salacious stories.

Of the darkness and mysticism that surrounds the subject of love Mrs. Jameson asks: "Must love be ever discussed in blank verse as if it were a thing to be played in tragedies or sung in song, a subject for pretty poems or wicked novels, having nothing to do with the prosaic current of our every-day existence, our normal welfare and eternal salvation? Must love ever be treated with profaneness as a mere illusion, or with shame as a mere weakness, or with levity as a mere accident? whereas it is a great necessity lying at the foundation of morality and happiness. Death must come—and love must come; but the state in which they find us, whether astonished, blinded, frightened and ignorant, or like reasonable creatures guarded, prepared and fit to manage our own feelings, this, we suppose, depends upon ourselves. For want of such self-management and self-knowledge look at the evils that ensue: hasty, improvident, unsuitable marriages; repining, diseased or vicious celibacy; irretrievable infamy; cureless insanity. With childhood and youth thus frightened, oh, see to it, parents, that your own hands hold the helm of destiny rather than suffer such interests to be wafted by the gusts of casual influence, or driven upon the lee-shore of ruin by the monsoon of artfully excited passions."

Only the truth will make them whole.

Sex and Life.

Sex is the vital principle of life, and must be preserved as its balance-wheel. Any unnatural mode of thought or practice which silences the voice of desire emasculates character; from thence onward life is upon the down-grade. No one has been truly great who has been weak in sexuality. Geniuses are only conceived by a complete blending of the entire natures of parents. That geniuses are rare accents the fact that the majority are born of the merely physical unions.

Emanuel Swedenborg said: "The spiritual fruits of the union of the sexes are love and wisdom."

The celibate life may be full of much that is good, true and beautiful, but perfection is approximated most nearly when the two principles of sex are harmoniously mated. No adult alone in life but will, in the silence, know a longing for the counterpart who must be somewhere in the world. But abundant and useful employment for hands and brain will prevent any blighting influence from devastating the good there is. Unmarried persons should make it a point to mix freely in the society of equals. The magnetic atmosphere of a company of men and women has a tonic influence on those who live alone. If no effort is made to draw one away from self in a greater or less degree, vital force will wane. Man needs the society of woman; woman needs the friendship of man. If it can not be that they can forsake all other ties, cleave to one another, and rear a brood of love-begotten children, less intimate association will relatively benefit.

The isolated ascetic can never enter into the portals of spiritual grace and strength, such as is the outgrowth of association between the sexes. In true marriage the only natural way is opened for growth in every direction. Loveless lives are non-progressive lives.

PART I.

CHAPTER II.

The Dominant Power of Life.

THE power to think and reason and to express the higher intellectual planes through the forces of same in language seems to be one of the strongest distinguishing features between humankind and their kindred, the lower animals. The power to ascend to thought is exclusively human.

In the scope of human intelligence advancement is made by the ability to choose. Life is represented by contrasts; or by positive and negative forces. The positive gives, the negative takes away. The most common of these contrasts are light and darkness, heat and cold, good and evil, all of which have their uses in the economy of life. The power of choosing from the positives, or the negatives, is in thought. If the power to think is but weakly used individuals are straws on the current of life, wafted hither and thither by the force of thought of others upon the same plane with themselves. Nature abhors a vacuum, and if one will not think his own thoughts, the mind will be filled, or preyed upon, by thoughts of others to a large extent. Thought modifies the cast of feature, the manner of gesture, and the entire character. If you are determined and decided the bearing and address will make it known; vice versa. Dickens recognized the outward expression of the interior life and makes use of it in describing "Miss Wade" in the story of Little Dorrit: "Although not an open face, there was no pretense

about it. 'I am self-contained and self-reliant. Your opinion is nothing to me. I have no interest in you, care nothing for you, and see and hear you with indifference'—this it plainly said. It said so in the proud eyes, in the lifted nostril, in the handsome but compressed and even cruel mouth. Cover either two of those channels of expression, and the third would have said so still. Mask them all, and the mere turn of the head would have shown an unsubduable nature."

The Power of Thought.

The veneer of polish which conventionality decrees can rarely hide real characteristics. The silent but powerful influence of private thoughts makes a record upon the form, feature, and gesture. That thought is constructive is everywhere to be seen, and it follows in the direction of ideals. If there is no clear-cut ideal, character is vacillating. Life grows from within; hence the true power to live comes from ideals approved by the conscience, and enforced by the will.

Regarding thought Mr. C. C. Post says: "There are currents of thought as there are currents of electricity, of magnetism in the earth, of water on the surface of the earth, of air above the earth. I know it because the same law runs through all things, and there is never a cause without its accompanying effect; never a spring without a rivulet of flowing water."

Whatever one thinks allies him with the strata of thought of others on the same line or current of thought. It attracts a similar element from others, in proportion to the strength put forth.

The study of evolution shows that animals evolved the parts of body needed to place them in harmony with their surroundings. While people may not be able through the force of their thoughts or desire to grow wings, they can, in the realm of

mind, become that upon which the heart is fixed. Evolutionary development has progressed beyond the physical realm. "Fra Elbertus" says: "All things come through desire, and every sincere prayer is answered.

"Many people know this, but they do not know it thoroughly enough so that it shapes their lives."

To be convinced of a desire and be backed by resolution, its attainment will come, no matter how many obstacles must first be surmounted. The central idea is to fix the mind upon an aspiration, and then not waver in working to that end. That does not say that the end will bring peace and happiness, for it may not be in harmony with the abstract law of universal goodness, without which no one wins contentment. An object may be persistently desired which, when obtained, will only bring disappointment. But the law is the *Law*. We get negatives by desiring them.

When life's forces or energies are put forth in a wrong direction, even though it be done in ignorance, the seeds of punishment are implanted therewith. Or if the wrong is done knowingly the individual is adding fuel to his own discomfiture. "Fra Elbertus" tells us that "Sin is its own punishment. God never punishes men for their sins: a self-lubricating, automatic Law looks after that." There is no escape from the penalty except a change of causes. As physical pain is felt from a misuse of bodily powers, so mental suffering must be as the result of misappropriation of mental powers. Experience in any degree of trangression ought to give wisdom to avoid the cause, on the same principle that "a burned child fears the fire."

"Man wittingly or unwittingly violates law—physical, mental or spiritual—and the inner tribunal and sequential penalty judge him. The law in itself may be kindly and the penalty educational, but to his untrained vision they both seem adverse

and even evil. But only through some experimental infraction of the moral order can undeveloped man divine its mandates. Only the freedom of choice, and some degree of discipline, at least slight, for missing the mark, make developed moral character and spiritual fiber possible. As man progresses in inner unfoldment and attains higher evolutionary planes, his divergence from the moral highway will be more slight. At length he will feel its leadings and outgrow the necessity of the hard primitive cuffs and blows which are provisionally required to startle him and push him out of the deep ruts of animality. * * * Growth is only possible through wise choosing and exercise."—Prof. Henry Wood.

Love the Needful Element.

The needful element to growth is the spirit of love. And it may be cultivated by striving to overlook, to not recognize, anything that excites antagonism. The foundation principle was expressed by the Christ when He said, "But I say unto you resist not evil." And Prof. Wood says: "The scientific value of non-resistance is that it destroys all the realism that evil possesses. In proportion as one turns his back upon it and leaves it behind it dissolves into its native nothingness."

As the absence of heat may cause one to freeze, and the absence of light may confuse and cause one to lose his way, so the absence of good may work to the disadvantage, and even injury, of one not fortified by strength from within. Good includes everything that works for the uplifting of humankind. Evil includes whatever lowers. As soon as the intelligence comprehends the fact that evil has no power save as a place is given it in thought, and non-recognition is practiced, one is upon the true highway of mutual and spiritual progress. To aid this end Mrs. Talbot has the following to offer: "You

must know that thoughts are creative, that words are spoken thoughts and stand for the things spoken. You can hold to a certain thought until you bring about the condition of that thought. You not only affect yourselves by thoughts, but others also. Bravery and confidence beget bravery and confidence; love and tenderness beget love and tenderness. But what is of most importance for you to know is that reiterating a certain word brings about the condition of mind that word or thought represents. This is a law capable of proof by all."

In rhyme Ella Wheeler Wilcox expresses the same thought:

"Words are great forces in the realm of life;
Be careful of their use. Who talks of hate,
Of poverty, of sickness, but sets rife
These very elements to mar his fate.

"When love, health, happiness and plenty hear
Their names repeated over day by day,
They wing their way like answering fairies near,
Then nestle down within our homes to stay.

"Who talks of evil conjures into shape
That formless thing, and gives it life and scope.
This is the law. Then let no word escape
That does not breathe of everlasting hope."

An experiment as to the action and reaction of thought-force is as follows:

When in the company of persons who do not antagonize what you have to say, enter into a description of something you dislike or hate. Let it be of a person who you think has done you wrong; or if you are a partisan in politics or religion, denounce the follies, fallacies and iniquities of the opposition.

Let loose the vials of wrath, and be sure that you *feel* what you are saying; keep up the tirade as long as you can. Then drop the matter and go about your ordinary occupation. Dismiss the subject entirely and forget what you have been saying.

In from two to six hours the rebound will be felt. Thoughts go first to the object toward which directed, and do their work if the person be not defended by a power of non-recognition of unwholesome influence. You may have forgotten the subject of wrath or denouncement (though if trying it as an experiment you will not be apt to). When the reaction comes a terrible fit of despondency is felt; there will seem to be no light or ray of hope whichever way you look. You may even feel that life is not worth living and incline to suicide. Everything will assume the worst possible hue.

It is only that the conditions created by an antagonistic state of mind have returned as "chickens come home to roost."

After proving that despondency or "the blues" comes through holding thoughts of evil, and concentrating energy upon them, the opposite experiment may be tried.

Think of some useful, pleasant subject, or person, and say everything good that can be thought of it. Laud it to the skies, and for as many minutes as possible hold the thought to the subject. Then forget the subject and assume the ordinary duties of life. In a few hours exuberance will come, and joy that will uplift the heart and stimulate the belief that all is good.

All the time people are performing one or both of these experiments. The confirmed pessimist has practiced denouncing, the optimist praising.

One of the present-day philosophers says, "A man doesn't really begin to live until he begins to love with that real love which eliminates every element of evil." Which is to say,

when one allows the light of love to shine into the soul without placing barriers in the way he has at last found his place in the true relation to the universe. In thinking thoughts of goodness, of health, of peace and prosperity he becomes allied with those elements in both the material and spiritual realm. For, as Helen Wilmans says, "The entire universe is one mind of which all objects, including man, are varied expressions." And as like attracts like in one realm so it does in another."

"To strive to forget enemies, or to throw out to them only friendly thought, is as much an act of self-protection as it is to put up your hands to ward off a physical blow. The persistent thought of friendliness turns aside ill-will and renders it harmless," says Mulford.

"There," said a boy to whom his mother read the above paragraph, "is a better reason for being good and doing good than to tell a fellow the devil will get him if he don't do right."

The instinct of self-preservation, "the first law of nature," is appealed to. By constant practice an attitude of friendliness becomes a habit. By that it is not meant that one should endure, then pity, then embrace what is not good, or that one should wink at the evil-doings of society. We can be friendly to a sinner, but not to the sin; and can see that sin is a wrong expression of life's energies. If possessed of sufficient wisdom and skill, we may be able to persuade a sinner to forsake the error of his way, by enabling him to see the sooner he changes front the less will be the pain and punishment as his share of discipline. Very few can philosophically accept pain and punishment as the "beneficent friction that turns men back from what would otherwise be self-destruction."

It is most important that natural law be learned, because knowledge of its rewards and punishments would save from many mistakes. It would change the point of view in the

majority of instances, and teach the advantage of coming into harmony at an early day.

The Folly of Fear.

"The truth shall make you free," says the good book. The constant seeking for what is true enables one to approximate freedom. But there is one thrall which prevents progress so long as individuals allow themselves to remain under it, and that is fear. Fear is the greatest foe of all, and it travels like an epidemic if conscious thought is not closed against it.

A bright newspaper woman, in an article contributed to her journal about cowardice, said: "There is nothing on earth to be afraid of—nothing worth being afraid of—if you face it.

"A coward is always afraid. Day or night, asleep or awake, eating or drinking, afraid, afraid, afraid. Of what? Of his own weak, groveling spirit. Of his own shrinking soul.

"If a man can not depend upon the friend within his own soul to help him in time of need, he is indeed friendless."

And Brother Elbert Hubbard says: "Fear is the rock on which we split, and hate is the shoal on which many a barque is stranded. When we are fearful the judgment is as unreliable as the compass of a ship whose hold is full of iron ore. When we hate we have unshipped the rudder. And if we stop to meditate on what gossips say, we have allowed a hawser to befoul the screw."

How can one lift one's self out of the strata of fear? By refusing to receive the thought—by resisting and not recognizing it. Fill the mind with thoughts of universal goodness. "Out in the silent night, under the stars, say to yourself, again and yet again, 'I am a part of all my eyes behold.' And the feeling will surely come to you that you are no mere interloper between earth and sky, but that you are a necessary particle of the Whole."—Fra Elbertus.

And as a necessary particle of the Whole, rely upon yourself to such an extent that what others may think or say will not cause a wavering from any noble desire to do or be. Put away fear that the power of thought may work in freedom, and then by experience and observation learn to distinguish what is good from what is not good. "He who will not see the truth can not actualize it in his life and surroundings," Mrs. Wilmans says. And that finds a parallel thought in the words of Samuel Taylor Coleridge: "He who begins by loving Christianity better than truth will proceed by loving his own sect or church better than Christianity, and in loving himself better than all." No limit must be placed upon possibilities. We may not always have the same point of view: indeed, if there has been mental and spiritual progression, we will not. As the scope widens, more and more of the circle of Truth can be comprehended.

The Ideals of Character.

The natural law of human progress is that we shall grow in the direction of our ideals; the higher the ideals the higher the character developed. If resolution is fixed to do the best that we know toward any given end, do not care if your manner of living is not entirely acceptable to the crowd among which you move. Undeveloped character may be compared to unripe fruit. Both are at last recognized for their true worth when unfolded and grown to maturity.

Mr. J. A. Edgerton is the author of the beautiful poem entitled, "Resolution," from which the following stanzas are taken:

"I will cling unto the highest; I will struggle toward the right;
I will keep my spirit windows ever open to the light;

I will keep my mind anointed with the magic balm of youth;
I will keep my footsteps pointed toward the shining hills of
Truth.

"I will leave the creeds and dogmas to the pedant and the
priest;
I will seek to do my duty in this present life, at least.
What am I? If I should live, or if I die, when I am gone,
There is nothing lost, or can be, for the Universe moves on.

"In my spirit is a promise of a sweet Eternity,
Of a progress onward, upward, through the eons yet to be;
I will trust it, well content; and strive to fill my present place
As a unit of the Infinite, a factor of the race."

The purpose of every one in whom spiritual consciousness has been quickened should be in accord with the first stanza quoted. To keep this spirit window ever open to the light one must conceive of infinite light as being immediately without, ready to enter when barriers are taken away; for thought fixes things in their relation to individual life. "By our desires we relate ourselves to the thing desired," Mr. Post tells us. By constantly and persistently desiring, attainment is finally reached. But the Universe is Good; Good is the positive force, and as thoughts and actions are in harmony therewith is firm ground gained. Browning says, "There never was one lost good."

Mistiness, ignorance that this is the true pathway to higher things, may cause the Children of Earth to waver in their allegiance to Good; but once on higher ground, where the mists dissolve, desire is singly for the way that leads to happiness.

A further step in that progress knows no resting-place. Once having attained that which was desired, the soul seeks yet other

means for perfecting growth. It has been said that a satisfied person is not a progressive one. What was an ideal, and infinitely desirable at one point of development, will be used and discarded, and another and better take its place. This is the natural upward path to the rounding out of character. Conscious determination to conquer obstacles and acquire ideals brings strength for accomplishing. Resist not evil—ignore it, and work with a will toward that which is good with the might which is in thought, the dominant power of life.

CHAPTER III.

The Temple of the Soul.

THE body, the dwelling-place of the Ego, is the seat of ever-changing activity. Its beauty, strength, and all the graces, or lack of them, depend upon development in accordance with natural law, or in transgression of natural law. First it becomes needful to know the way of life; after that it is only necessary to "obey and live."

There is, within every natural mind, an instinctive dislike for whatever is repulsive or shows signs of decay. The same inherent reason that causes one to object to rags and tatters in the way of clothing causes one to dislike imperfections of the body. It is the tendency of human nature to seek the relatively perfect.

Beauty Acquired by Self-Culture.

With a little care each day most of the imperfections of the body can be improved or overcome. Beauty and strength of body are acquired by attention to physical needs, just as beauty and strength are added to the intellect—by taking thought. Added to that is the more powerful power of the mind to preserve and rejuvenate the body.

Says a well-known writer: "You, and generations before you, age after age, have been told it was an inevitable necessity —that it was the law and in the order of nature for all times and for all ages—that, after a certain period of life, your body must wither and become unattractive, and that even your minds must fail with increasing years. You have been told

that your mind had no power to repair and recuperate your body. * * *

"It is no more in the inevitable order of nature that human bodies should decay as they have decayed in the past than that man should travel by stage-coach as he did years ago; or that messages should be sent only by letter as before the use of the telegraph, or that your portrait could be made only by the painter's brush as before the discovery that the sun could print an image of yourself on a sensitive surface prepared for the purpose. * * *

"If you make a plan in thought, in unseen element, for yourself as helpless and decrepit, such plan will draw to you unseen thought-element that will make you weak, helpless and decrepit. * * *

"If in your mind you are ever building an ideal of yourself as strong, healthy and vigorous, you are building to yourself of invisible element that which is ever drawing to you more health, strength and vigor. * * *

"Persistency in thinking health, in imagining or idealizing yourself as healthy, vigorous and symmetrical, is the cornerstone of health and beauty. Of that which you think most, that you will be and that will you have most of."

This thought is not essentially new when it is remembered that Shakespeare was continually bringing the idea forth in varieties of dress. "There is nothing either good or bad but *thinking* makes it so," he tells us. But humanity has had to be developed to understand thoughts uttered by master-minds that grasped the truth.

The Inner and the Outer Life.

"Outer life must correspond to inner life, else law and sequence would be at fault, and the chain which binds cause and

A MESSENGER OF LOVE—N. Sichel.

THE HEART'S AWAKENING—W. A. Bouguereau.

effect be severed." So let us place ourselves in harmony with the natural tendencies to beautify, and thereby align ourselves with the beneficence of all Natural Law. There are many means for adding to external beauty, but only that is real and lasting which is made by an inner life which acknowledges and demonstrates that "All is Good"—that what are known as evils are no more a part of Natural Law than barnacles are a part of the ship to which they become attached. That one can and should live above fear and strife for the best development of form, feature and *character.*

The author of "The Woman Beautiful" says: "There's nothing that will make a stolid, bovine face like a brain that isn't made to get up and hustle. * * * Study is mental development, and mental development usually means a bright, pleasing expression."

Where are the girls or adult women who care only for a doll's beautiful, expressionless countenance? They are not to be numbered among those whose minds are not infantile. Yet they who possess the secret of lasting beauty are too few.

Madame Yale, the beauty specialist, says of the facial expression: "Our feelings are portrayed very accurately on the surface of the face and are telegraphed silently to all who behold it. Consequently there is no way of disguising the real cause of a bad expression."

There may be lotions for the complexion, tonics and brushings for the hair, care for the hands, etc., but unless the inner woman be under cultivation also, the veneer will not avail for long.

If one should be under a hereditary cloud of ill-nature so that it is not natural to look for the bright side, it can be dispersed by cultivating cheerfulness and amiability until the habit becomes established. To this end it will be of great as-

sistance to practice Mrs. Talbot's *Joy Lesson;* which is to go to your room and lock the door; sit down by your reading-table, or dressing-table, and repeat the word *Joy* aloud. It will assist mental concentration on the thoughts of *Joy, Peace* and *Love* to tap with a pencil on the table as the word, or words, are repeated. Exclude all other thoughts; and, after the mind becomes fixed strongly enough to attract the thought-element of gladness, ill-nature, or "the blues," will be banished as darkness fades before an influx of light.

A writer to *Freedom* says: "While the principle of Life and Love exists we must claim its living reality in act, and in feature, and its expression is Gladness.

"Glad of what? Of everything. If you sweep crossings put your soul into your work while you sweep. Make clean your corner of the earth. The joy of any kind of work is in doing it as well as can be done. Try it and see how the act of concentrating your attention upon what you are doing will deliver you from feeling that it is wearing or beneath you or anything that you don't want it to be.

"Remember it is not the kind of work you are doing that will elevate or lower you in the evolution of the race. It is the attention that you give it that is helping to organize your mental faculties and lift you into a clearer consciousness."

Unhappiness, moroseness, sourness of disposition result from an unnatural bias of the mind. When a point of view makes one unhappy it is a wrong point. There may be checks, disappointments and even defeat, but if viewed from the right point they contain the germs of recompense. It is not that the problems of life have no true explanation when the sky of one's life is overcast, but that the exact place from which the skein can be raveled has not been reached. This is the way the master-mind of Emerson stated it: "Cause and effect, means

and ends, seeds and fruit can not be severed; for the effect already blooms in the cause, the end pre-exists in the means, the fruit in the seed. The changes which break up at short intervals the prosperity of men are advertisements of a nature whose law is growth."

The Power of Habit.

Man is but a bundle of acquired habits, says an ancient proverb. This is only true so long as life is allowed to flow in the channel of the least resistance. When it is discovered that any habit contains the germs of mistake which will bring a harvest of mental and physical suffering, the human being who would continue the habit is not a well-developed specimen of the species.

Youth is the habit-forming period, and, of course, may be saved disciplinary suffering if proper habits are instilled into the growing intelligence. At the same time the idea of the power of a positive mental attitude should be made known. Wrong habits may be crowded out by the substitution of proper habits in a positive mind. Submission to wrong habit acknowledges a weakness of mind. Youth needs that guidance from wisdom and experience which will enable it to control the life-forces which flow through each particular organism. This assistance is best given by turning toward the developing young the potent power of thought, in which is positive recognition of inherent good. It adds just so much to the native strength of the youth, and so helps him to rise "by things that are under his feet." Holland's verse says:

"We rise by things that are under our feet;
By what we have mastered of good and gain;
By the pride deposed and the passion slain,
And the *vanquished ills* that we hourly meet."

The parent of all mischief is idleness. There is no point in the career of life where one can afford to be idle. Activity is the natural means for growth. If, in youth, the right means for the expression of vital force are not provided and directed, it must follow that the wrong means will be used, for life is expression.

Each person, young or old, lives up to his or her ideas of happiness, according to the energy of the directing power, the will. It may be these ideals are contrary to the Law of happiness; if so, they will fail to realize happiness. The spirit of altruism should prompt every one to recognize the spark of divinity in his fellow-creature, and endeavor to help it to mature. Refuse to look at the wrong expressions of life, called sin, and direct toward the needy thoughts of good. Man, or woman, is not an isolated creature; the family is not an isolated creation; they are parts of the social organism, and rise toward happiness the more swiftly by endeavoring to elevate all.

Julian Hawthorne thus summarizes an article on the oneness of humanity:

"Philosophy discovers that mankind is one, and civilization confirms the revelation.

"First comes the self-consciousness of the individual, then of the family; afterward successively of the nation and the race. Humanity, begotten an unself-conscious unit, was splintered into fractions by self-consciousness; and history shows us how it voluntarily recombines till it becomes a unit once more, every atom conscious of the whole, and the whole feeling through its component parts."

"No man liveth to himself alone."

Each one of us must hold himself a part of all we see, and by learning the higher laws overcome the lower. No time should be spent in repining: see mistakes and rise above them.

As our prophet of the morning said to a daughter, "Finish every day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow will be a new day: begin it well and serenely and with too high a spirit to be cumbered with your old nonsense. This day is all that is good and fair. It is too dear with its hopes and invitations to waste a moment on the yesterdays."

So much for beautifying by means of self-culture.

Beauty of Body and Beauty of Soul.

If beautifying the character reacts on the exterior, it is also true that care for the body has a beneficial reaction upon the intellect. The body is the house in which we live: it may be either the temple or the prison of the soul. Each person must look to the sanitation and beautifying of his soul dwelling-place, or, like the material abodes, it may become foul, unhealthy and unfit as an abiding-place. The body is also the medium through which the Ego receives education. If care is not given to keep the delicate machine harmoniously working, advantages otherwise obtainable through health are closed.

The Needs of the Body.

A healthy mind in a healthy body was the Grecian ideal, which, so long as that ideal adhered, caused Greece to lead the world. But Greece had not fully discovered the Law. She worked from the outside, whereas the Law means first the healthy mind. "In proportion as mind becomes pure and wholesome, habitations and environment are transformed as a resultant correspondence." The transformations result from mental culture.

Let us consider the needs of the body under the heads of:

Breathing,	Dress,	Rest,
Diet,	Work,	Special Exercises.
Bathing,	Recreation,	

BREATH is the first need of independent life. The babe's first cry which gladdens the mother's heart is his earliest physical need for the air which shall be one of the chief sustainers of the life upon which he has entered. Throughout his earthly apprenticeship health, strength and the power of endurance depend mainly upon the breathing capacity.

BREATHING.

The physiologist Cutter describes the lungs as being "two in number, and occupy completely and accurately the pleural chambers of the thorax. Each lung is free in all directions, except at the *root,* which chiefly consists of the bronchi, arteries and veins connecting the lung with the trachea and heart. The lungs are spongy, porous organs, the tissues of which are very elastic.

"Each lung is of a conical shape, the apexes of which are blunt and project into the neck from an inch to an inch and a half above the first rib. The base is broad and concave, and rests on the diaphragm. Each lung is divided by a deep fissure into upper and lower lobes. The upper lobe on the right side is imperfectly divided into two lobes, making three in the right and two in the left lung. The lobes are made of many closely packed lobules. Each lobule is composed of the terminal branch of an air-tube, possessing a cluster of air-cells. In the fine interstitial areolar tissue of the lobule ramify the pulmonary vessels, the nutrient vessels, the lymphatics and the nerves."

Respiration introduces oxygen, a food, into the lungs, and

by the diffusion of gases leaves some of it with the old air in the lobules and carries away carbonic acid gas—waste and poisonous product. The diffusion, or mixing, of gases is of the greatest importance in the economy of nature; accumulation of poisonous gases is thus prevented, and the interchange of gases made possible, in organisms provided with lungs.

Oxygen is the most abundant and the most important of all the elements. Through the process of *osmosis,* or the diffusion through a membrance, the blood attracts oxygen and gives up carbonic acid gas. Almost all of the chemical changes in the body are between the oxygen of the air and the carbon and hydrogen of the food. When deprived of pure air the body is injured as much as when deprived of pure food—though in a different manner.

There are two principal ways in which the body is deprived of needed oxygen: by lack of ventilation in the dwelling, and by tight clothing, which prevents elasticity of the trunk and chest. Both are very common violations of the law which makes breathing necessary to life.

The Need of Fresh Air.

The body needs, in pounds, three times as much air as it does food and drink combined; yet so accustomed are people to eat and drink, and to breathe scantily, that the body is filled with disease and impurity. Morbid lungs mean morbid conditions in every function of the body.

Ventilation is the process of keeping a standard of purity in occupied rooms, notwithstanding constant vitiation from respiration and combustion through lighting and heating agencies. The changes by ventilation are partly through the diffusion of gases and partly by actual currents of air. Rooms must be provided with an inlet for pure air and an outlet for vitiated air.

The sleeping-room, in especial, should receive the necessary ventilation. Except in cases of heavy wind, excessive damp, or storm, the sleeping-room windows should never be closed.

One-third of life is usually passed in sleep for the recuperation of powers for use and development in the other two-thirds. During sleep the body becomes unconscious of surrounding dangers, among the worst of which is vitiated air. There are no sleeping-rooms large enough to accommodate enough pure air to suffice one person's needs through the night. The intermixture of the pure air in the room with the exhalations from the lungs makes the stored-up air less and less pure with each breath.

In the temperate zone the forces of nature are efficient in changing the air in summer. Damages to the body are common in winter for lack of attention to this very necessary provision. Windows and doors are provided with "weather-strips" to "keep out the cold;" doors are closed as quickly as possible; windows *never* opened. In such houses the dispenser of drugs and medicines finds steady patronage, and the patients are always complaining that they can find "nothing that will help" them. There isn't anything to take the place of common sense, which teaches that unless there is abundance of pure air, pure water, pure food and plenty of sunshine normal health can not be maintained. The pioneer forefathers had abundance of pure air and sunshine, which largely made up for what was lacking in other ways. Had they not overtaxed themselves with muscular exertion and their wives with excessive child-bearing as well as labor, their descendants would not be the puny things they are.

The best recognized method for the ventilation of houses—sleeping-rooms particularly—is by means of the open fire. The upward current provided thereby draws away the vitiated air.

It is necessary, however, that the supply of pure air come from without, the best place being from the lower part of an opened window. The Encyclopedia Britannica makes the following note on this subject:

"The absence of proper inlets for air in a house where several fires are burning involves a danger that is much more serious than other effects of bad ventilation. When the air which is required to take the place of that discharged by the chimneys can only struggle in through small openings, the pressure within the house falls considerably below that of the outer air, the water-traps under basins and closets are liable to be forced, and foul air is drawn in from every leak in soil-pipe or drain. The writer has found a house drawing what seemed to be its main supply of 'fresh' air from the public sewer, through a defective joint between the soil-pipe and the (untrapped) house-drain.

"To preserve the lowest standard of purity tolerated by sanitarians, ventilation must go on at the rate per person of 1,000 cubic feet per hour, and 3,000 cubic feet per hour are required to preserve the higher standard on which some authorities insist. Parkes advises a supply of 2,000 cubic feet per hour for persons in health, and 3,000 or 4,000 cubic feet per hour for sick persons."

Ventilation should be accomplished without creating too great a fall of temperature. Living-rooms should not be kept too warm, so that the lungs experience too great a change when in the open air, as every person should be for a part of each day. American homes are commonly super-heated.

There should be no damper, if a stove is used, in sleeping- or sitting-rooms, so that the products of combustion may pass freely out at the chimney. Vessels containing water should be placed near the fire on a heating-stove to preserve a good de-

gree of moisture in the room. Cook-stoves should be provided with a hood built so as to project over the stove, for the purpose of conveying away vapors that arise from cooking. Especially in winter are the vapors confined if an outlet is not provided, so that the occupant of the culinary department is subjected to a steaming not intended for herself. Attacks of chill are thus very easily incurred.

The Deadly Corset.

In addition to poor ventilation a large percentage of the female half of civilization have the trunk of the body ligatured so tightly that a full, deep breath is an impossibility.

The corset is an inheritance from the past for which we are not grateful. Its aim is directed toward securing slenderness and shapeliness of the human figure, but which falls short, in every direction, of attaining any beneficial result. The custom of wearing this garment has created a model that few women have strength of mind enough not to follow, although it is immeasurably better to follow good principles than bad fashions. To be able to have a healthy body in which full breathing is practicable there must be no restriction to muscular action from neck to toe. There must be perfect freedom to have perfect development.

In the human body the bony frame-work of the ribs furnishes protection to the upper chest, or corset suicides would be more numerous. As it is, the floating ribs are cramped and distorted, displacing the internal organs. In the economy of the body each organ has its own place as well as its own function; there are no cavities or vacant spaces. Altogether they furnish the machinery by which life is expressed. Nor can one be displaced, or its use set at naught, without overtaxing and injuring other organs of the system. That the lower part of the body was not provided with a bony frame-work must mean that the

organs contained therein should have unrestricted action. All the needed support to the abdominal viscera is furnished by the small ligamentous band which suspends each organ, and by the abdominal wall, which is composed of three layers of muscles.

Suppose an arm or a leg should, from puberty, be subjected to constant pressure during the day. Would not that member in time become comparatively useless? Yet the digestive, respiratory and part of the circulatory systems are compressed and hindered until good health is impossible.

Commiseration for sins against the moral law is very scant. Every person who transgresses is considered worthy to receive the punishment which follows in the wake. Transgressions against the physical are as inevitable and as just. Old Dr. Johnson hit the truth when he said, "Every sick man is a rascal," though the rascality may consist only in self-injury. Women are "the weaker sex" because they have made themselves so, the violations of physical law reflecting in the mental and spiritual realm. Miss Willard said this: "Niggardly waists and niggardly brains go together. The emancipation of one will keep place with the other; a ligature at the smallest diameter of the womanly figure means an impoverished blood supply in the brain, and may explain why women scream when they see a mouse." In her life-time Miss Willard was one of the true students of cause and effect.

Dr. Ellis says: "The practice of tight lacing has done more within the last century toward the physical deterioration of civilized man than have war, pestilence and famine combined."

Dr. Foote says: "Tight lacing is a practice more destructive to health and longevity than tobacco-chewing, liquor-drinking or pork-eating."

The German physiologist Sömering enumerates ninety-two diseases resulting from corset-wearing.

Madame Yale gives the following list of the corset's crimes against beauty:

"1. Stiff, inflexible waists, with a coarsely exaggerated contour in place of slight and subtle curves.

"2. Sickly, sallow complexion.

"3. Pale, thin, compressed lips.

"4. Red noses.

"5. Lack of buoyancy, general feebleness, lassitude, apathy and stupidity.

"6. Distorted features.

"7. Soured tempers.

"8. Wrinkles.

"9. Lusterless eyes.

"10. Ugly shoulders.

"11. Ugly bust.

"12. Clumsiness. (Corsets render any woman more or less inelegant and ungraceful in her movements. Her imprisoned waist, with its flabby unused muscles, has no chance of performing beautiful undulating movements.)

"For the corset as a bust support there are now any number of better substitutes. But women should distrust any kind of a 'support' which antagonizes the foundation principle of physical development, viz., the perfect muscular possession of the body."

Dr. Richardson says: "If tomorrow women were placed in all respects on an equality with men they would remain subject to superior mental and physical force so long as they crippled their physical, vital and mental constitution by this one practice of cultivating, under an atrocious view of what is beautiful, a

form of body which reduces physical power and thereby deadens mental capacity."

Dr. Kitchen says: "The whole civilized world is in bondage to a pernicious habit of dress—practiced by women and countenanced by men—that threatens the abrogation of the diaphragm. Were it not for the nightly recesses which the diaphragm receives from the constricting pressure of the tight waist, it would soon atrophy, and life to the corset-wearer would be a very brief span."

Again the same author says: "The corset on a child is slow murder of the child, and if she be of a phthisical or consumptive tendency it is not so very slow murder either. * * Every woman who has grown up in a corset, no matter how loosely worn, is deformed."

Quotations and argument against this vain and foolish garment might be indefinitely prolonged. The devotee of fashion, rather than be a follower of natural law, will continue violations unless pain and suffering call a halt. Perhaps when ordered by her physician to lay aside the corset she may begin to imbibe ideas relating to habit and health. Growth is from within. "The first indication that a woman's mind and soul are expanding is when she lays aside her corset." While she adheres to it she is impaired as a human being, emasculate as a representative of her sex. In her the creature without power to love is found; in her are found wanting the elements necessary to make an equal factor in the human race with man. The woman who begins the day by putting on a corset with her morning gown for fear of being called untidy, and for the same reason continues wearing it through the day, is she who is ungenerous, illiberal, fault-finding. If her views of life were large and true she could not be so unkind to her own body as to hinder its most vital processes.

Women's environment and heritage from the past have largely made them dependent upon men. Consequently when the understanding of man is great enough to make him a practical enemy of the corset it will be put aside. As Ella Wheeler Wilcox says:

"All we have done, wise or otherwise,
Traced to the root, was done for love of you."

Girls at home, longing for a moment's personal comfort, lay aside the corset, and are met with reproach or ridicule from brother or father for being "slouchy." Wives often receive the same remarks. Both the use and reception of those ideas are based upon ignorance. A woman sure of the righteousness of her cause can expound to the male relative the virtues of not wearing the corset. But she should not, and need not, be slouchy. A man conversant with natural law can do much to enable a beloved one to see the right. Or at the extreme, he can improve by the recommendation of a writer to *Physical Culture,* who says: "The writer does not expect to reform women. He wants to reform men—desires them to see clearly the necessity of marrying women—not sexless nonentities; by this means the reform of women will the sooner be accomplished."

Gerald Massey said: "No woman has any right to marry anything less than a man.

"No woman has any right to marry any man who will sow the seeds of disease in her darlings; no, not for all the money in the world."

What is sauce for the goose is sauce for the gander. No man in whom is the true spirit of manliness will marry a corset-wearer. He has the right to demand a reform before marriage; and he must assist all in his power to aid to mental growth so that the garment which does so much to undermine health will never be assumed again.

The habit of corset-wearing may be likened to the drink habit in men. Equal damage is done to the soul and body of the slave, and an equal heritage of mental and physical weakness is bequeathed to posterity.

The proportionate figure should have a waist measurement equal to two-fifths the height; the weight should be as follows:

4 feet 10 inches	100 pounds
5 feet 0 inches	110 pounds
5 feet 1 inch	115 pounds
5 feet 2 inches	120 pounds
5 feet 3 inches	125 pounds
5 feet 4 inches	130 pounds
5 feet 5 inches	135 pounds
5 feet 6 inches	140 pounds
5 feet 7 inches	146 pounds
5 feet 8 inches	153 pounds
5 feet 9 inches	161 pounds
5 feet 10 inches	170 pounds
5 feet 11 inches	180 pounds
6 feet 0 inches	191 pounds

Clothing that in any way hampers the body must be laid aside for other garments that allow freedom. Deep breathing can and should be consciously cultivated; for the integrity of health largely depends on aeration of the blood. Mrs. Le Favre says: "When it is understood that there are upward of a hundred million air-cells in the lungs and that each and every cell is intended for use, we get a notion of the tremendous importance of Lung Culture." "Remember that it is not more fat nor harder muscle that is to save the world from consumption, but larger and more mobile chest walls and the ability to keep the entire lungs actively engaged."

In all movement the chest should lead; the abdomen be well drawn in; the vital organs raised.

If mankind were stationary improvement would be impossible. For the fact that we are not we should be duly grateful. The female figure and female health can be improved, after years of disobedience to natural law, by facing about and following the right path. As onward she may press toward physical and spiritual perfection any woman will win strength according to her needs.

DIET.

In diet no specific regulations can be given that will apply in all cases. Each individual must decide for himself as to that which best nourishes. Dr. Charles H. Shepard says: "It is what we eat and drink that makes or mars our condition. If we partake only of the pure we shall be clean and pure throughout. If, on the contrary, we attempt to build up with gross material it will result in uncleanliness, disease and death."

A Japanese proverb says that it is not what we eat but what we digest that builds up the body. Food may contain many elements of nourishment, but if not acceptable to one's individual powers of digestion and assimilation, to him it is the same as if no nutrition was contained therein.

Humankind is largely governed by the sense of taste. In one part of the globe the food used may be revolting to inhabitants of another. Dr. Foote says: "John Chinaman feasts on cats, dogs, wharf rats, sea slugs, sharks, bats, and caterpillar soup. Australians and many other people eat snakes, kangaroo-rats, mice, maggots, etc. The Japanese prefer green peaches, apricots and plums to ripe ones, as an offset, I suppose, to our eating green cucumbers. One who visits Africa may have a plate of tender young monkey; while the people

THE RETURN FROM THE BALL—L. E. Fournier.

BASHFUL LOVE—A. H. Bramtot.

of the Arctics treat their visitors to a diet of putrid seal's flesh, putrid whale's tail, reindeer's chyle, and partially hatched eggs."

It would be hard to find anything of either the animal or vegetable worlds without *some* nourishing properties as food. If the sense of taste were not largely perverted it could be trusted to select food for the system; but in early life, before any of the powers are ready to discriminate, all manner and conditions of food are given until digestion is deranged and taste is made abnormal. Often, it is true, depraved taste is inherited, but more often it is cultivated. Few mothers realize the need for feeding infants regularly. Every expression of pain or discomfort is met with proffers of food, until the sense of taste becomes *the* ruling propensity during childhood, and often through life. Pleasing the sense of taste is the open door to pleasing other bodily senses; and as the body lives by that upon which it feeds, whole trains of evils are engendered by abnormal taste.

Dear Froebel, lover of children and of humanity, said: "Always let the food be simply for nourishment, never more, never less. Never should the food be taken for its own sake, but for the sake of promoting bodily and mental activity. Still less should the peculiarities of food, its taste as a delicacy, ever become an object in themselves, but only a means to make it good, pure, wholesome nourishment; else in both cases the food destroys health. Let the food of the little child be as simple as the circumstances in which the child lives can afford, and let it be given in proportion to his bodily and mental activity."

Simplicity and Moderation.

A general rule for application to dietetics is simplicity. The craving for hot spices, fermented drinks, fetid cheese, all highly

seasoned epicurean delights, is acquired artificially. Whenever possible the young should be taught that simplicity in eating means mental and bodily strength. "Frugality has cured diseases that defied all other remedies," Dr. Felix Oswald tells us. "For thousands of reformed gluttons it has made life worth living after the shadows of misery already threatened to darken the gloom of approaching night. Luigi Cornaro, a Venetian nobleman of the sixteenth century, had impaired his health by gastronomic excesses till his physicians despaired of his life. As a last resort he resolved to try a complete change of diet. His father, his uncles and two of his brothers had all died before the attainment of their fiftieth year; but Luigi determined to try conclusions with the demon of unnaturalism, and at once reduced his daily allowance of meat to one-tenth of the usual quantity, and his wine to a stint barely sufficient to flavor a cup of Venetian cistern water. After a month of his new regimen he regained his appetite. After ten weeks he found himself able to take long walks without fatigue and could sleep without being awakened by nightmare horrors. At the end of a year all the symptoms of chronic indigestion had left him and he resolved to make the plan of his cure the rule of his life. That life was prolonged to a century—forty years of racking disease followed by sixty years of unbroken health, undimmed clearness of mind, unclouded content. Habitual abstinence from unnatural food and drink saves the trials of constant self-control and the alternative pangs of repentance."

The Secret of Long Life.

In the eighty-sixth year of his life Luigi Cornaro wrote a treatise on "The Way of Attaining a Long and Healthful Life," in which he said: "I was born very choleric and hasty;

I flew into a passion for the least trifle; I huffed all mankind, and was so intolerable that a great many persons of repute avoided my company. I apprehended the injury which I did myself; I knew that anger is a real frenzy; that it disturbs our judgment; that it transports us beyond ourselves, and that the difference between a passionate and a mad man is only this, that the latter has lost his reason forever and the former is only deprived of it by fits. A sober life cured me of this frenzy; by its assistance I became so moderate and so much a master of my passion that nobody could perceive that it was born with me.

"A man may likewise with reason and a regular life correct a bad constitution, and, notwithstanding the tenderness thereof, may live a long time in good health. I should never have seen forty years had I followed all my inclinations, and yet I am in the eighty-sixth year of my age. If the long and dangerous distempers which I had in my youth had not consumed a great deal of the radial moisture the loss of which is irreparable, I might have promised myself to have lived a complete century. But without flattering myself I find it to be a great matter to have arrived to forty-six years more than I ever expected, and that in my old age my constitution is still so good that not only my teeth, my voice, my memory and my heart are in as good a condition as ever they were in the briskest days of my youth, but likewise my judgment has lost nothing of its clearness and force.

"I am of the opinion that this proceeds from the abridgment I make of my food."

Abuses of the digestive powers have contributed more than other causes to human degeneration. When those lose tone or vigor the body must depend on the breathing powers more heavily. But oxygen must needs have material upon which

to operate, and it is only through the digestive system the supply can come.

Those guilty of the sin of overeating fill the blood with more material than can properly be aerated, and thus create disease. Then the digestive apparatus weakens.

Dr. Salisbury's System.

Dr. Salisbury some years ago originated a very valuable system of treating disease by giving the system just as little food as would preserve vitality. Mrs. Stuart, an English lady, elaborated the system, and has been very successful in curing disease of long standing. The treatment consists of the stomach bath first. An hour and a half before meals as much hot water is taken as can be relished, but which should not be *less* than a pint. This washes away any impurity and gives the walls of the stomach the tonic action of water. For the meal nothing is to be taken but minced lean beef, as being the easiest of digestion. One is not limited as to quantity, or as to ways of preparing it, except that salt and pepper and a little butter are to be the only seasoning. Before breakfast, dinner, supper and retiring the hot water is to be used.

For any disease resulting from bad digestive powers, such as dyspepsia, chronic diarrhea, constipation, leanness, obesity, etc., the system is admirable. One will feel weak for a few days, as the drunkard whose cups are withheld, but persistence for forty-eight hours makes cure sure and almost easy.

Proper Combinations of Food.

As to the combinations of foods for the rule of life, there should be but few varieties at one meal. The chemical activities necessary for digesting a great variety are so widely different the system is apt to be overtaxed. Simplicity should rule.

Foods should be solid. The agents in digestion are fluid, and when fluids are taken with the meals, these are diluted, and consequently delay in digestion results. During the delay fermentation sets in and renders much that might be assimilated unfit for use. Cooked food and raw food generally do not combine well.

"Health Culture" says: "Fresh fruits all combine well with one another. As a rule fruits, fresh or cooked, combine well with bread or cooked cereals and with nuts or nut foods. Fruits do not as a rule combine well with cooked vegetables, nor with milk, cream, cheese, eggs or meat."

As to the use of a mixed diet of animal and vegetable foods, every one has a choice. Vegetarian people argue a beautiful, clean doctrine, but one is never ready for an experiment until fully convinced of its virtues. A few rules for guidance may be summed up as follows:

Do not overeat.

Do not take liquids at meals.

Do not partake of a variety.

Masticate thoroughly.

Never take food unless hungry.

Be cheerful during meal-time. Cheerfulness aids digestion.

Under the old-time severe church rule all recreation was suppressed over Sunday, the day the toilers had for rest. Consequently dietetic excesses became prevalent. Sunday became a day of good dinners and unlimited drinking. New England and much of the rest of the United States spend weary hours Saturday to provide gustatory delights for the Sabbath. It is the rest-day diversion and mother of many ills.

THE BATH.

BATHING is very necessary for the preservation of health. The processes of nutrition and waste, to be kept normal, need that waste be regularly removed. Generally used, the term bath refers to treatment given the skin and hair. The skin is one of four means the body has for eliminating impurity; the others are the lungs, kidneys, and lower bowel. For the purpose of elimination and also for regulating bodily temperature, the skin is provided with two and a quarter millions of little glands. The external openings are called the *pores* of the skin. These glands are situated in the connective tissue beneath the skin, in the shape of a coil; on the outside of the coil is a network of capillaries from which perspiration is derived. It is estimated that there are not far from three thousand of these glands to the square inch, and that they eliminate from one to five pounds of fluid in twenty-four hours. The fluid evaporates or is absorbed by the clothing; the solid impurity remains at the surface. The bath removes this impurity. If the bath is neglected the impurity becomes rancid, and more or less of it is re-absorbed into the body to create disease. Besides the impurity left through perspiration there are also the scales of dead scarf-skin and the oily matter which is secreted to preserve the texture of the skin. None can with impunity neglect the removal of all of this waste.

For a person in health there should be a daily sponge bath, supplemented twice a week by a full warm bath with plenty of soap. This will keep the glands of the skin in activity. The bath should never be taken where the temperature is lower than 65 degrees Fahrenheit. Chill must be avoided. Be brisk and keep the blood vigorously circulating; use plenty of friction when drying the body. There should be a glow on the surface when done, to show there has been a good reaction.

Various Kinds of Baths.

In delicate health, or disease, there are a variety of baths which are invaluable to restore health.

The vapor bath is excellent for colds, catarrh, pleurisy, fever, and affections of the bowels, kidneys or skin. The perspiratory glands are excited to unusual activity and bear out, at least in part, the morbific matter. There are many cabinets on the market for hot-air and vapor baths, but a home-made apparatus answers quite well. This consists of an alcohol lamp over which is placed a small vessel containing water. When the water boils place a cane-seat chair over the lamp, and seat the patient therein, clad only "in her complexion"; wrap blankets about the chair and patient very closely. A footbath may be used in connection herewith; let the patient place her feet in a bath hot as can be borne, and enclose with the blankets. After some moments of free perspiration a dry cover should be substituted and the patient lie in bed wrapped about closely. When cooled enough, she may have a dry rub and resume her garments.

The hot-air bath is taken much as the vapor bath. Use the alcohol lamp without the vessel of water; let the patient drink freely of hot water. Cold may be used, but is not best. After several minutes of free perspiration the body should be thoroughly shampooed with soap and water and dried. This is excellent for gout, rheumatism, skin diseases, colds, etc.

Where there is fever or inflammation in any one part, the circulation may be equalized by a hot foot-bath; as in headaches, bronchitis, or inward fever.

The sitz bath is arranged for bathing the hips and abdomen. It may be tepid or hot, as the case requires. During pregnancy the tepid sitz bath is invaluable, used daily for the last few weeks; during labor the pains are made easier and more

natural by the hot sitz bath. It is good in case of bladder, rectal or kidney disorders.

Sulphur, salt, or other mineral baths are to be had by adding any such to the water used.

Do not bathe within two hours after eating.

Do not bathe when exhausted.

Avoid chill after bathing.

Use mild soap, so as not to irritate the skin.

Never bathe in a cold room unless very vigorous in health.

CHAPTER IV.

The Temple of the Soul—Continued.

WATER for use internally is as much needed as water for external use. Every adult, or at least every family, should have a fountain syringe, which should be used two or three times a week with regularity. The lower bowel is not merely the receptacle for the refuse of food matter; it also is provided with absorbents, which convey away whatever is possible from the colon, leaving hard, impacted masses to be passed away. Patients with stomach trouble have been nourished by food injected into the colon.

The Internal Bath.

It has generally been considered sufficient if there is one passage daily from the bowels. This is true only so far as that one bath weekly is sufficient for the external body. But suppose any chronic disease has taken hold; it is then the bath external and internal becomes a wonderful restorative agent.

The benefits of cleansing the stomach and lower bowel by means of hot water are manifold. The stomach bath washes away any mucus or undigested food and prepares the way for a fresh food supply. It should be used an hour to an hour and a half before meals, to give the gastric glands time for accumulation of their juice. The impurity thus washed away is carried into the colon and discharged.

Flushing the colon consists of the use of a quantity of hot water by means of the syringe. Dr. Forrest says: "The ben-

efits of the flushings are not due to the cleansing of the canal alone. Indeed we doubt whether this is its principal benefit. The introduction of hot water has a direct and powerful effect on the nerves of the stomach, liver and kidneys, and all the organs, stimulating them to vigorous and healthy action. The evidence of this is, the increased appetite which follows the flushing; the increased flow of bile from the liver; the decided increase in the amount of urine eliminated by the kidneys; and the general increase in strength."

To use the flushing sufficiently it is best to use a little water first to unload the rectum; after that use three, four, five or more quarts of hot water until the colon is quite distended, so that the effete matter has no chance to be packed away in the loculi.

It is well to take this internal bath on the evenings when the full warm bath is taken, and retire immediately. This avoids any exposure to chill one might otherwise risk.

It is quite as "natural" to cleanse the alimentary canal as it is to wash the external surface of the body. Many things Nature left for man to discover, not the least of which were the uses of water.

HYGIENIC DRESS.

THE CARE of the body in the matter of clothing varies with race and clime. Each race has its foibles respecting dress which only culture can overcome. In the more enlightened races there has been evolution in dress. There is change constantly under the name of Fashion, but by easy stages a system is being evolved that clothes without injuring the body. Elasticity, warmth and lightness are the objects to be sought. Appropriateness is also a huge item. From neck to toe there should be freedom, although the inventive genius of ages has

labored to circumvent it. It is only when woman awakens to her individual needs that she declares against bands, steels, bones and stays. Healthful dress is compatible with artistic dress. Mrs. Talbot says: "That which leaves the body untrammeled is beautiful, provided the covering is for use, not for adornment only."

Underclothing.

The choice of underclothing is of prime importance. It has been made of numerous layers with bands, ruffles, tucks and starch galore. Madame La Favre says: "There is not one single, solitary instance in which starch improves wearing apparel for man, woman or child." In former generations it was deemed necessary for women to wear innumerable petticoats to disguise the fact that they had legs. These were crisply starched, and, with the weight over the abdomen and hips, were eminently sufficient to make the delicate creature who was at one time the fashion.

The union undergarment has largely replaced the drawers and chemise of long ago. For summer the garment is of knee length with no sleeves; for winter it reaches from wrist to ankle. Finely woven cotton or linen is the preferred material. Silk is not durable; wool is too warm and also irritates the flesh of many. Prof. Warman says: "Woolen underwear is warm and is most universally worn. This is a common verdict, and, I grant you, it is true. It is warm. It is too warm for underwear. It overheats, then chills the body. All underclothing should permit free transpiration from the skin; otherwise, colds and other bad consequences follow.

"Wool as an outer garment? That is quite another question. The very fact that wool is a slow absorbent renders it the very best material for overgarments, especially in humid climates and in seasons where protection against atmospheric

moisture is required. The outer clothing should be a poor absorbent, the underclothing a good absorbent of moisture; therefore the very condemnation of the one is the strongest commendation of the other."

When the thermometer hovers about the freezing point the extremities should be well protected. For the feet there should be closely-woven, fleece-lined hose, and strong shoes. For outdoor wear, the nether limbs should be encased in warm equestrian tights; the feet in overshoes. There need be but one petticoat. If it is made after the Jenness-Miller model—that is, divided—except in very cold weather the equestrian tights may be left off. The Syrian skirt—the divided skirt gathered and fastened about the knee—is a good winter garment. These divided petticoats are made on a rather wide yoke, to avoid a too great fullness at the hips. Undergarments are purely useful and not decorative in their service. Many cling to the idea of daintiness rather than usefulness; to them it is of little worth to appeal for a discarding of beflounced petticoats, corset-covers, chemises, drawers, etc., etc.

Sensible and Artistic Gowns.

The gowns may be decorative as well as useful. The street and visiting gowns may follow conventional design if you will, but oh! my sisters, belong to yourselves at your homes. Wear the artistic Josephine, or Empire gown, for leisure, and a washable fabric for your work, short of waist and short of skirt. Give your waist room for action and your chest room for expansion.

If you are a business woman, have the gown of tailor's cloth, with the skirt built upon the gown form; the front of the waist may be decorated in imitation of the shirt waist; the jacket of the Eton or Blazer style. Do not crowd your

lungs, stomach, liver and all internal organs by girting yourself with corsets, tight waists and bands.

One of the most alert and attractive business women the writer ever knew wore such a gown, with the skirt well lined and stiffened, and no petticoat. Her entire wearing apparel for the time was shoes and stockings, union undergarment and dress. The cold weather suggested the equestrian tights, outside wraps and overshoes. Contrast this garb with that of the conventional female!

The author of "The Evolution of Woman" says the sex dresses with deference to men. So while striving to awaken women to the dangers of constriction the call must extend to men. The following extract is from that volume:

Male Prejudice to Overcome.

"For the reason that the female of the human species has so long been under subjection to the male, the styles of female dress and adornment which have been adopted and which are still in vogue are largely the result of masculine taste. Woman's business in life has been to marry, or, at least, it has been necessary for her, in order to gain her support, to win the favor of the opposite sex. She must, therefore, by her charms captivate the male.

"The girl at the ball with the wasp waist and the greatest number of furbelows is never a wall-flower and her numbers never go unfilled. The fashionably dressed young woman in the horse-car is never permitted to stand, and in shops attended by men she never lacks attention. The gaudy dress, the pinched feet, and the pink complexion, although false, of the actress, young or old, never fail to attract a host of male admirers.

"As for thousands of years women have been dependent on

men not only for food and clothing, but for the luxuries of life as well, it is not singular that in the struggle for life to which they have been subjected they should have adopted the style of dress which would be likely to secure to them the greatest amount of success. When we remember that the present ideas of becomingness or propriety in woman's apparel are the result of ages of sensuality and servitude, it is not remarkable that they are difficult to uproot, especially so as many of the most pernicious and health-destroying styles involve questions of decorum as understood by a sensualized age.

"Not long ago I chanced to overhear a conversation between two American girls in Berlin, one of whom had been a resident of that city for several years, and was therefore acquainted with the prevailing idea of female decorum as expressed by female apparel. These girls were speaking of dress, and the later arrival on German soil, the younger of the two, remarked: 'As for me, I never wear corsets.' Whereupon the elder, shocked at such a confession, replied, 'Then you certainly never can dance in Germany, for the German officers who would detect your state of undress would think you immodest, and would certainly take advantage of the situation to annoy you.' This is an illustration of the manner in which male prejudice thwarts any attempt of women to adopt a style of dress better suited to their health, convenience and taste. The same obstacles have been encountered by those women who have been sufficiently courageous to attempt to free their ankles from the cumbersome skirts so detrimental to health and so destructive to the free use of the legs."

But, dear ladies, *have* convictions on the harmfulness of ordinary dress and then live up to them, at the very least in your own homes. Your home is your castle wherein you must ever strive to be your very best self. You may not like to

offend the prejudices of people among whom you live, but first duty is to self—to make self strong, generous and true. By that means prejudice can be outlived, overcome, vanquished. The Chinese Minister, Wu Ting Fang, said that women who wear corsets cannot bear noble sons, and that decolleté dress is indecent. Minister Wu, despite the inborn traditions of his race, has reached a wise conclusion regarding Caucasian dress for women. After all, the proper conventions, styles and mannerisms are matters of geography. One can never afford to be enslaved thereby.

WORK.

As to work, Fra Elbertus says: "Blessed is that man who has found his work," which in this case includes woman. All human effort should have a clearly-defined purpose, and be cultivated toward definite ends. Nothing can be more unhappy than that man or woman should be laboring in any field of work for which he or she is not adapted.

That work is best which serves some useful end. No one advances who is not armed with skill for some effort whereby society is benefited. On this subject Charlotte Perkins Stetson says: "Work is not an individual process, but a collective one. It involves division of labor and exchange of products. It is something you do for others while others do something for you. It is practical, profitable altruism.

"It is most distinctively human because human interests are most interdependent. We cannot be human at all without common effort for common good.

"It is apparent to any one that the mere existence of society depends on work, that the nature of a given society depends on the nature of its work, that the further progress of society depends on the progress of its work; and also that the indi-

vidual finds his best happiness in his best work—his worst punishment in uncongenial forced labor, or that last horror, forced idleness.

"No expression of energy of sufficiently high grade to be called 'work' is done to gratify one's self. In the very nature as work it is done for some one else.

"The individual may be led to do it by self-interest, drawn into the social service through his sub-social desires; but the work is for others.

"We are urged to seek food through the irritation of an empty stomach, called appetite, but the processes of nutrition are not for the gratification of the appetite, but for the nourishment of the body.

"If work were done for individual ends why should we not impose on one another? It is because of our false notion that it is a personal matter done for personal gratification that we see everywhere the private interest working against the common interest; and the world is clogged and injured by bad work, and it is because of this same false notion—that work is something you do for yourself and would not do if you did not have to—that we so foolishly misjudge the work and the worker."

The Right Direction of Energy.

Activity for mental, spiritual and bodily powers is a necessity. If energy is not expressed in a right direction it will be in a wrong direction. When expressed right the individual develops; when expressed wrong he deteriorates. This is the law.

"Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do when it ought to be done, whether you like it or not," says Prof. Huxley. "It is the first lesson which ought to be learned, and

however early a man's training begins, it is probably the last lesson he learns thoroughly." This is true because the dignity of work has not been understood. We will not wish to put off what should be done when we once know that order is put out of plumb by our so doing.

Service, some kind of useful service, performed to the best of one's ability and skill, is the world's need. They who labor not with brain and hand have no real claims to respect.

RECREATION.

RECREATION is the activity one seeks as a change from the business of his life, and is as necessary as that business. The brain-worker needs physical recreation, the muscle-worker needs mental recreation; both need social recreation. It is a false system of economy that calls for all of the working moments to be expended in labor. One degenerates into a machine, whose labor only brings fuel to the sustenance of life. Work should be more than that one may win food for the stomach and shelter for the body. One should have pleasure in his work and pleasure in his recreation—pleasure of the kind that warms and thrills the soul. There is a kind of pleasure partaken of during leisure hours that destroys. This is not true recreation. The alcohol habit, the tobacco habit, the confection habit, the habit of sexual intemperance, all react with blightsome vengeance on those who so seek diversion from their labors. Bodily senses are all for useful purposes, but to please the sense regardless of the object of the sense brings unhappiness for soul or body, or both, sooner or later.

The best recreation is that which best fits one for a successful discharge of his duties. But a week or two of summer vacation will not make up for the violations of health during the rest of the year. When we have learned to "obey and

live" there will be some recreation and rest interlarded with work throughout the year in addition to the summer vacation.

Recreation means all things to all men—and women. Some go to resorts by mountain or sea, where the strenuous life is not lost for a moment; some go hunting and fishing; some merely camp out near to nature's heart and rest. The last appeals most strongly to the unconventional type.

In taking "to the woods" for a summer's outing it should be borne in mind that disease is often contracted by drinking from unused wells or stagnant pools. The appetite, too, is stimulated by free life and outdoor exercise, and there will be tendencies toward intemperance in diet, which should be nipped in the bud.

Dr. Oswald says: "We should teach our children that a healthy mind can dwell only in a healthy body, and that he who pretends to find no time to take care of his health is a workman who thinks it a waste of time to care for his tools."

REST.

Rest-time is the time when the conscious forces of the body are suspended for the purpose of recuperation. Activity must be followed by rest; this is one of the physiological rhythms by which life is preserved. Usually the hours of rest are taken at night in bed, the average need being for eight hours of sleep. During the day there can be moments of rest. Relax the body and mind several times during the day's work, and you will be repaid by increased strength. There should be rest before meals if there has been fatigue; twenty minutes should be given before and after dinner. The processes of digestion cannot work if there is fatigue.

Sleeping-Rooms and Beds.

Preparations for the night rest should be well planned. The sleeping-room should have thorough ventilation through the day and openings for free passage of air during the night. Everybody should sleep alone, from the new-born infant to one in old age. This is a most important item generally overlooked in household arrangement. To be sure, a large house will be needed if each member has his own sleeping-room, but more people can afford it than arrange for it. When more than one person must be assigned to a room each should have his own bed, even though the persons be father, mother and infant.

It would be difficult to find two persons exactly equal in bodily powers. When sleeping together, between the same pair of sheets, the stronger will absorb vitality from the weaker. One person will arise refreshed for the day's work, the other more or less enervated.

When two persons occupying the same bed are husband and wife, in addition to the depletion of one's vitality, there is the temptation to amorous excess, which is avoided by separate beds. Of this Dr. Ruddock says: "Married persons should adopt more generally the rule of sleeping in separate rooms, or at least in separate beds, as is almost the universal custom in Germany and Holland. The rule being adopted, several very important advantages would result in regard to health and comfort.

"Opportunity makes importunity. * * *

"And it is well known that if two persons, one sickly and the other healthy, occupy the same bed, one will become diseased without the other being benefited."

The sleep of all persons should be calm, without pain, uneasiness, fantastic dreams or visions. It should be neither interrupted nor too long undisturbed. The only movement

that does not mean irregularity is occasional turning from side to side. The more noiseless the breathing, the more healthy. The skin should be warm and moist to the touch, but excess means variation from health.

The better position to assume on retiring to rest is to lie upon the right side. If there is food in the stomach it passes out the more readily. The pillow should be just enough to allow the head to have horizontal position when lying on the side.

The mattress may be of straw, husks, hair or wool; feathers are no longer used.

The covering should combine warmth with lightness. If comfortables are used they should be of light weight and easily laundered. Blankets should have a thorough outdoor airing at least once or twice a week, particularly if used without sheets, as is sometimes the case. Absolute cleanliness in regard to beds and bedding is the most essential requirement.

Beds must be thoroughly aired each morning after use. To make up a bed soon after it is vacated is to hold in its folds the poisonous emanations from the body. Frequent repetitions of this sin will breed disease.

The Importance of Rest.

In disease, rest is half the cure; indeed, some forms of disease are amenable to the rest cure alone. Almost any form of indigestion, a disease of the digestive tract, will yield if that system is allowed proper rest. One may, with advantage, fast from one meal up to three, four or seven days. This time allows the system to rid itself of whatever is clogging it, at the same time giving an overworked digestion rest.

A current periodical says: "People used to think when a man was sick he needed something unwholesome to eat. The

thrifty housewife stored away quantities of preserves, brandied cherries and jellies so as to have them in readiness if some member of the household should be ill. An old friend of mine came home late one night and found that his wife had retired. Discovering no pie in the pantry, he went to the door of his wife's room and called out: 'Mary, where is the pie?' Mary replied: 'I am very sorry, John, but there is no pie in the house.' Returning to the pantry he made a search for cake. Finding no cake, he again sought the chamber door and asked: 'Mary, where is the cake?' Mary very reluctantly confessed that the supply of cake was also exhausted. The old gentleman, in stern voice, then asked: 'Why, Mary, what *would* you do if some one should be sick in the night?' "

Although the pessimist may say the world is growing worse, it will be hard to find many communities now where the crime of gluttony is not recognized or more or less worked against. Illness is not nearly so generally treated with pie and cake as some generations ago, thanks to the onward march of progress.

SPECIAL EXERCISES.

SPECIAL EXERCISES are used for the development of weakly parts. In this way even hereditary tendencies can be overcome. Helen Gardner says: "The conditions under which we develop or restrict our inherited tendencies will determine in large part whether heredity shall be our slave-driver or our companion in the race for life, liberty and the pursuit of happiness."

Any one with sufficient intelligence for parentage will know what mental or physical weakness of one or both parents is apt to manifest itself in the child, and assist the unfolding intelligence to overcome it. For instance, there is a family tendency to pulmonary disorders. The child is given every benefit of

sunshine, open air and exercise for deep breathing, while the body is fortified with nourishing food. A tendency to nervousness is overcome by attention to physical well-being. According to Prof. Caldwell, inherited tendencies may be divided into three classes:

"(1) Good, that are strong and well, if left free to take care of themselves. Good that are weak and need encouragement and choicest culture.

"(2) Excessive faculties that need training to right uses and applying to good causes, lest they be turned into evil channels, and become curses instead of blessings.

"(3) Bad tendencies that need to be curbed and turned in opposite directions, making them blessings."

One who has missed the proper cultivation in childhood can, by effort of the reason and will, aid himself in encouraging faults of mind or body. For instance, where there is natural taste for some of the habits that destroy—the alcohol habit or the tobacco habit—the person must keep at the most extreme distance from temptation. Resolutely turn from them and fill the mind with thoughts of what will ennoble and uplift. We become like that upon which the mind is fixed.

A teacher of the principles elaborated by Francois Del Sarte says: "Aside from a proper diet there is nothing that will bring self-control so readily as breathing exercises." Following are the two most highly recommended:

Del Sarte Breathing Exercises.

(1) Standing; draw abdomen well out of sight, and expand the chest; throw head back and face up, simultaneously raise bent arms to level of shoulders and place finger-tips upon the chest at a point between the breasts on the sternum; look up and inhale while sweeping the arms and hands up, back, and

down to sides; exhale while sweeping hands to chest again by the same heart-shaped circle. Repeat six times, drawing the air in from above.

(2) Standing; expand chest and draw abdomen out of sight; throw head back and face up, the arms at the sides; now up, around the same heart-shaped track previously used, but in this you inhale as if sweeping the air from all sides and above into the lungs; exhale as you sweep the arms up, out, and down.

Health being absolutely dependent upon the breathing powers, there is no phase of life in which chest cultivation may be neglected. Well-developed shoulders and chest always indicate the finer, stronger individual powers.

A breathing exercise for use first thing in the morning is the following:

Before dressing stand erect, heels together, hands on hips, chest up; inhale slowly through the nostrils until the lungs are full, then expel all the air, forcing it out as much as possible. Then take five ordinary breaths, and repeat the forced respiration. Repeat five times each morning. There will be a dizziness at first, because the system has not been used to so much oxygen, and it has an intoxicating effect; but this passes away with practice. This forced respiration causes distension of the air cells, which become stronger by the exercise.

When walking in the open air it is beneficial to try this lung gymnastic: Inhale slowly, then walk five or ten steps and exhale slowly. Any person who is a member of a family with tendency to diseases of the air passage will be able to hold at bay by lung development the scourge of asthma, bronchitis and consumption.

BEAUTY CULTURE.

SPECIAL CULTIVATION toward personal beauty may be included in the care of the complexion, hair, teeth, hands, feet, etc.

Real beauty, like every other good thing, is worthless unless it is useful. But a woman with a little thought can keep herself in a good state of preservation and perform her useful part, too.

If nature has bestowed upon you good, regular features, be thankful and take care of yourself; if not, remember the features are but a slight percentage of personal attractiveness. A good carriage, a fresh complexion and a kindly spirit are of first importance.

A good complexion is obtainable through health; pure food, pure water, pure air must be appreciated and used for all their value. To keep the skin in good condition the body must be kept cleansed of impurities from its millions of perspiratory pores. The internal bath used twice or three times a week will be of great aid in keeping the system rid of impurity.

Mrs. Humphrey says: "Too many clothes serve to clog up the skin and make the myriad of nerves that keep it alive grow sensitive, so that a little dab of fresh air on an unprotected spot will make you shiver all over. Stimulating these little nerves that lie upon the surface of the body tends to stimulate the healthy action of the skin, the circulation of the blood, and, finally, the operations of all the organs. So it is desirable to disrobe completely in a room filled with fresh air, and to take a good rub-down. This is particularly gratifying after a long day of visiting, or shopping, or other work. If you feel nervous or irritable, try this simple method of getting the kinks out of yourself; it will make you doubt if you

really were nervous or in bad humor after all, so pleasing will be the change."

A Remedy for Sleeplessness.

For sleeplessness nothing is a better aid to overcome it than the air-bath. One should completely disrobe, and, while walking about, rub or roll the flesh.

For the morning sponge-bath a sedative water composed of a cup of sea-salt, a half-ounce of camphor, a half-ounce of ammonia, is recommended; these are put into a quart bottle, filling the bottle with hot water; it is ready for use after twenty-four hours. Put a teaspoonful of the mixture in the basin for use at one time. You will be surprised at the amount of dirt it will remove, and it brings a most beneficent reaction. The ammonia cleanses the pores, the camphor and sea-salt impart a tonic effect; the result will be a firm, smooth skin.

In bathing the face, be careful not to be rough in application of soap and towel. From exposure to the air and dust the face and hands need extra care. Use warm, soft water; lather the face and hands with a good soap, and then massage every portion of the face and neck until the flesh tingles; after which rinse, and dry by patting the skin with a soft towel. Apply a cold cream or skin-food. The following formula is recommended by Madame Qui Vive:

Madame Qui Vive's Skin Food.

Spermaceti	one-half ounce
White wax	one-half ounce
Sweet almond oil	two ounces
Lanoline	one ounce
Cocoanut oil	one ounce
Tincture benzoin	three drops
Orange flower water	one ounce

The object of a skin food is to prevent wrinkles. These little lines on the face mar its smoothness and beauty, and Mme. Qui Vive adds, "are unnecessary evils—anyway until one gets to be a hundred or so."

They appear because the sub-cutaneous fat has been absorbed, and the skin falls into folds. When the skin food is applied the fattening qualities are absorbed and nourish and build up the underlying tissues.

Mme. Pote says not even worry will make a woman grow wrinkled and old so rapidly as sleeping with the head upon high pillows. The tendency of the muscles through the day is to droop; this should be counteracted by sleeping with the head low. The facial massage should consist mainly of upward pressure.

Facial Eruptions.

Facial eruptions are largely due to internal impurity, but are sometimes caused by disease or by an irritating soap, or too frequent use of powder. Where the face is washed and groomed more than the rest of the body the impurities are called to where escape is most freely offered. When it is made unsightly by blotches attention must be given to the diet, to the internal bath, and other hygienic measures. All pastries and confections must be given up unless you love yourself more than your friends, who wish to see you beautiful. Feast on fruits instead of candies; eat apples, oranges, peaches, pears, etc. Pimples or blotches must never be irritated; keep the skin clean, the skin food applied, and let the cure come from internal cleansing and purifying through fresh air, pure food, and the copious internal bath.

Blackheads require much the same treatment. They are due to inactivity of the sebaceous glands and logically disappear when activity is created.

Sunburn, Freckles, Etc.

Tan, sunburn and freckles come from external causes—the action of the wind and sun.

Do not bathe the face with soap and water before going out without fortifying it with some preparation such as the following:

Take of—

Distilled witch hazel.....three ounces
Prepared cucumber juice.....three ounces
Rosewater ..... one and one-half ounces
Essence white rose.....one and one-half ounces
Tincture of benzoin.....one-half ounce

After using a little of the above a powder may be dusted lightly over the face.

The discolorations are from activity of the pigment cells under the skin and disappear when the face and hands are for a time protected from wind and weather.

Sunburn should receive treatment with a cold cream rubbed well into the skin. It is a burn and should be treated as such.

Care of the Hands.

The care of the hands is not so serious an item, except to housewives who are also the maids-of-all-work. There is so much of washing and polishing and dabbling in water they must really use care to prevent the hands being unlovely. The secret of keeping the hands nice is to keep them free from sudden changes of temperature. Dry them thoroughly after having them in water and rub them with corn-meal or corn-starch.

For chapped hands or lips take of the following:

Oil of almonds.....four ounces
White beeswax.....two drachms
Spermaceti .....two drachms
Rosewater .....four ounces
Orange water.....one ounce

Melt the first three ingredients in a saucepan, and while cooling beat in the last two.

After bathing the hands, the skin should be pushed back from the nails to prevent *hang nails*. Nails should be trimmed the same shape as the finger. Use no sharp instrument about the nails except the scissors for trimming. Rub callous spots with pumice stone.

Redness of the hands is due to restriction of the circulation. Either the sleeves, corset or waist is too tight. Lemon juice will whiten the hands; apply cold cream immediately after using it.

Protect the hands from cold; it is destructive to their beauty.

Care of the Hair.

Nice, clean, glossy hair is an attractive adjunct to beauty. Naturally oily hair should be washed twice a month and thoroughly rinsed; hair not so oily, about once in a month. Equally as often the hair should be trimmed. When the nourishment within each hair does not extend the full length it splits. The trimming of the ends is to remove these dead portions, which will promote growth. When the hair begins falling, the scalp may be invigorated by using massage. It quickens circulation and brings health and strength to the roots. The following recipe is good for dandruff and falling hair:

Resorcin..... forty-eight grains
Glycerine..... one-fourth ounce
Alcohol...enough to finish filling a two-ounce bottle
Apply to the scalp each night, rubbing it well in.

When bodily health is not good it is to be seen in the hair as well as the complexion and eyes. Any of the symptoms should suggest attention to health.

Brushing the hair at night removes accumulations of dust. Dandruff is a natural formation and will accumulate if cleanliness is not observed sufficiently.

A coarse comb is used to disentangle the hair, the brush to remove flakiness and dust; fine-tooth combs are outgrown; they belong to the past exclusively.

Superfluous hair is removable surely by electrolysis; the root of the hair is destroyed and future growth made impossible. Another method sometimes effectual is the use of peroxide of hydrogen alternately with diluted ammonia; the peroxide bleaches and the ammonia deadens the growth. This takes time and patience. If the skin becomes irritated, use cream.

Every woman should adopt a style of dressing the hair becoming to herself and cling fondly to it. Each passing whim of fashion cannot improve the appearance of everybody.

The Care of the Teeth.

THE CARE OF THE TEETH cannot begin too early; throughout life they are accessory adjuncts to health as well as beauty. When the first infant teeth have come in they should be washed every morning with cool, clean water and a soft cloth. Should a dark-colored formation appear next the gum it may be removed by rubbing prepared chalk over the discol-

oration. If it cannot be reached by the soft cloth use a toothpick bitten into pulp at one end as a kind of brush. If the milk-teeth are not cared for the permanent teeth are apt to come in irregularly and be a lasting deformity. By the time a child is three years old he can be taught to use a brush himself, moving it up and down rather than from side to side, to remove particles from between the teeth.

Teeth are apt to become diseased from insufficient or improper nourishment as well as a lack of cleanliness. But this tells in all parts of the body.

Cleansing of the teeth should be after each meal, and upon retiring all particles should be removed by drawing between the teeth a piece of waxed dental floss; or if too close together, the fine Japanese toothpick, or a quill, may be used. Use a mild tooth powder whose ingredients you know, rinsing the mouth as well as the brush, thereafter. Tepid water should be used, as excessive cold or heat destroys the enamel.

The saliva undergoes a putrefactive change, which, when allowed to dry in the mouth, forms tartar, and is very injurious to teeth and gums. Upon making the morning toilet the mouth may be rinsed with water in which there is a drop of listerine or carbolic acid; it prevents tenderness of the gums. Occasionally a little juice from a lemon may be squeezed over the brush and rubbed over the teeth, to remove the yellowish deposit; it must be used quickly and the mouth rinsed, as it may damage the enamel. It must be borne in mind that the enamel, nature's protection for the teeth, when once destroyed is never formed anew. Hard substances that break or scratch it should never come in contact with the teeth. Never use metal toothpicks, bite threads, or crack nuts with the teeth.

Visit a dentist twice a year to have the teeth examined. Wherever there is a decayed spot it must be filled, and all

calcareous accumulations removed. Use the tooth-brush often, and the breath will be kept pure and sweet.

The Care of the Eyes.

BEAUTY OF THE EYES is dependent upon a reasonable degree of care, but chiefly upon the cultivation of an amiable, intelligent spirit, for the eyes are "the windows of the soul."

To face the light when reading or writing, to sew or embroider in a flickering artificial light, to read lying abed, are a few of the things to be avoided if sight is to be preserved. Whenever the eyeballs ache, work of whatever nature should be suspended and the eyelids closed for a few moments' rest. Another thing, do not cry. There have been many dramatic things written about women who are sad-eyed, but the fashion has passed. Weeping inflames and injures the eyes, and, at present, is apt to mean you are lacking in courage to properly face your environment.

When the eyes sting and burn, bathe in tepid water and rest them for a time. Weak tea is a good tonic. The eyes will partake of any impairment of the health; hence, for sake of strong sight, do not pervert the rules of health. Dr. Foote says that John Quincy Adams preserved the perfectness of his sight until he died, at the age of eighty-one, by pursuing, from an early age, the habit of frequently bathing the eyes and making manipulations toward the bridge of the nose.

Where there are visual disturbances they may be corrected by properly fitted glasses.

The Care of the Feet.

THE CARE OF THE FEET lies mainly in keeping them properly shod, cleansed, and the nails trimmed. The perspiratory pores are largest on the soles of the feet and palms of the

hands; hence, more impurity is deposited there. When the semi-weekly or weekly warm bath is taken the feet must be well rubbed with a cloth or bath-brush that the collection of scarf-skin may be easily removed. The nails should be trimmed closely.

Shoes must be well-fitting, but roomy enough to allow muscular freedom. A large, ill-fitting shoe is as apt to create corns, bunions, etc., as one too tight. The low heel is the only one to be considered; high heels throw the body out of its proper poise. If there are corns, a little sulphuric acid upon the end of a toothpick touched upon them will soon cause them to disappear.

Ingrowing nails are torture and are caused by pressure usually upon the great toe. Bathe the afflicted member frequently to reduce inflammation, and with a pen-knife or cuticle knife cut a V in the center of the nail. As the nail will tend to grow together at the niche cut out, the ingrowing portion will be lifted from the flesh in which it is imbedded. Be good to your feet and they will be good to you, by never paining.

Health, Beauty and Grace.

EASE AND GRACE for body as well as mind are attained through the training, polishing and disciplining of all the faculties. Prentice Mulford says: "The habitually self-possessed woman will be graceful in every movement for the reason that her spirit has complete possession and command of its tool, the body."

Francois Del Sarte taught that physical development, poise and gesture are but the external expressions of an internal condition, and that on teaching the expression the feeling would follow. Which is true when the real principles are understood. But much culture is superficial; is veneering to a coarse in-

terior life, and is not what is desirable for any stage of growth.

In middle life and even in old age suppleness of the body may be preserved by attention to certain needs of the body. One writer says: "Exercise all your life. When you stop exercising and become indolent, you begin to die. Nature has willed it so." To preserve equilibrium it is necessary to take exercise enough every day to cause free perspiration and fatigue. If the daily employment is of a physical nature there should yet be enough other muscular exertion to secure an all-around development of the body.

For adults physical activity must not be violent nor too prolonged, although the muscles may be firmer than in youth. If one guards against the "sin of over-eating," daily exercise prevents undue accumulations of fat, which encourages degeneration of the tissues. The editor of *Physical Culture* says: "Avoid making the idiotic mistake that fat means health. If you are fat begin to reduce at once. You are carrying a burden that can always be discarded by vigorous, intelligent efforts, and the brightness and joys of life will vastly increase when this plain duty has been performed."

To prevent the stiffness and inflexibility of old age the following, by J. R. Blake, should be seriously considered:

"Hardening of the bones determines why some people are small and others large. Apart from disease which destroys life, the wear and tear of the body in old age is absolutely unnecessary. We have seen that ossification is necessary to youth, in order that the bones may be formed and made strong. The action of the blood which deposits bony matter is kept up through life. Why do we not reverse the process? Old age, the wear and tear of life, the breaking down of the functions of the body, are all caused by this osseous process, which itself is caused by calcareous deposits. What do these

deposits cause? The hardening of the skin; thereupon it wrinkles and gets old; the hair is killed and the blood does not circulate freely. The brain turns to bony tissue in its intricate parts; it loses flexibility, becomes hard, so that deep thinking is impossible. The heart gets clogged; its circulative action is impeded, and the body suffers by reason of poor blood. The arteries, muscles, sinews and tendons become stiffened by the osseous tendency, and old age is attended by multitudinous ills. *All of the above symptoms of old age and disease can be prevented by the use of distilled water.* At the age of twenty-one and ever after one should habitually dissolve the osseous deposits of the body. The daily use of distilled water is, after middle life, one of the most important means of preventing these deposits and the consequent derangement of health."

Health is beauty and happiness. It is attainable by conformity to the laws of being. We are forever under the sovereignty of natural law, and only by complying with its conditions are we enabled to realize what is best in our earthly apprenticeship. It is not a tyrant, but a powerful co-operator, when properly understood.

CHAPTER V.

The Unfolding of Womanhood.

IN LONGFELLOW'S poem entitled *Maidenhood* there is a pretty piece of imagery in the first of the following lines:

"Standing with reluctant feet,
Where the brook and river meet,
Womanhood and childhood fleet!
* * * *
O, thou child of many prayers,
Life hath quicksands, Life hath snares.
Care and age come unawares."

The sure and certain transition from a care-free stage of life to one of serious import fills a matured person with keen apprehension, if he or she thinks at all. Childhood, maidenhood, wifehood, motherhood, and through all of these the factor of being a representative of humankind, mean enough for the vital consideration of every one. Very few children can be left to "jus' grow" as Topsy did. Their pathway must be illuminated by love and wisdom, that they may conform to, and not transgress against, the laws of being.

The Curse of Prudishness.

Standing in the pathway of those who seek truth for themselves and the world is what is known as the Curse of Prudishness. Coming in the guise of virtue, like a wolf in sheep's

clothing, it is apt to be mistaken on first sight. One content with superficialities will never see below the surface, and hence never know he is lowering himself by the low ideas regarding bodily impurity. In an essay on "Prudery" Lady Cook says: "We have seen young matrons blush with shame when strangers have gazed upon their naked babes. The beautiful sight of these little, rosy, fragile incarnations of innocence, pure and spotless as from the Maker's hands, could crimson their own mother with blushes! What folly is this! What irreverence to Him who made us and saw all His work that 'it was very good.' It was not thus that Mary presented the infant Jesus to those who came to do Him honor; and doubtless for many a year He ran and played with other children, as they do even now in the East, without a vestige of covering. The prurient mock-modesty which is horrified by the sight of a naked child or a nude statue or picture is a reproach to our weak-mindedness and to our defective moral training. If we were not so 'nice' as we are, our ideas would not be so nasty. We want more common sense, more philosophy on sexual matters before the mind of our children can be trained to purity, and vice be lessened thereby. For it is not *what* we see, but *how* we see. If impurity exists in the soul it will be inflamed by the most innocent cause; but if pure it will regard all things of evil with indifference, and all of good with approbation. It follows, then, that prudery is a particular form of impurity."

Prudery and Ignorance.

Prudery is the result of a misconception of what is pure. The outgrowth of training under it proves it to be a foolish fallacy. But often it is ingrained as a matter of conscience, and "none is so hopelessly wrong as he who is conscientiously wrong." Mothers try to excuse themselves when sons or daughters go

wrong by saying, "It has not been my fault. I trained them the best that I knew." This is scant comfort. It is the common custom of humanity to seek, even to the ends of earth, for a cause outside of themselves for any failure. It is with the hope of aiding *young* parents to see the way clearer that this volume is issued. And there are many others working along this line, one of whom remarks: "Young parents, you have not forgotten the five or ten years of disquiet, misery or mortification that was your lot, caused chiefly by the remarks of equally ignorant comrades, or suggested by the many sights and incidents which crowded your lives—mysteries which hypnotized you until you were powerless to concentrate your thoughts upon your studies. The only relief to be found was in constructing air-castles and hatching ideas, living in and with them until marriage brought sad awakening that was almost disheartening.

"How we would like our children to avoid all this, not having their lesson hours obtruded upon by goblins or fairies. It is within your power, young father, young mother—will you but make the endeavor. Give nature an open chance. Remove those barriers to mind and body. Let them know the truth. They will surely find out these things. It is better they be taught the truth by the parents whom they trust and confide in than that they pick it up elsewhere, clothed in mystery and sensationalism."

Parents as Teachers of the Truth.

Those parents who begin at the beginning with their infants will have no difficulty in imparting to them the meaning of the unfolding powers of creative life. It is just the next step in growth which should continue in the confidences between them. At every turn from the first dawn of the powers of observation

a child is met with the marvelous changes called birth and death. Naturally he wants to know. Sometimes his parents are without reverence for creative life, so they are not in position to teach truth. So, as Mrs. Stetson says, we have "this amazing paradox of mothers ashamed of motherhood, unable to explain it, and—measure this well—lying to their children about the primal truths of life—mothers lying to their own children about motherhood!"

The young girl entering the threshold of womanhood might often, in the words of Schiller, say:

"I wander through the wood alone,
No trodden path before me lies."

The goodly knowledge of life's laws is the only safe guide. Unfolding within her being is the voice of creative life, whose function she must know to save herself from mistakes that bring pain and often humiliation in their train. Parents shield their children from harm in many ways, but the way of most value is the one of teaching the child to care for himself; to develop within himself the powers for good, so that the darkness of evil has no place in his mind. Then whatever he may hear of impurity will not attract him as something mysterious and sensational.

Up to the age of puberty the voice of creative life is comparatively dormant; that is, the child's body has not sufficiently developed for its manifestations. When it is first heard, the individual, boy or girl, is startled, and seeks for explanation of its meaning. How often do they dare to go to parents? Alas the day! confidences have ceased, if ever they were begun, caused by the ruthlessness which degrades the sex nature. There are few other subjects beyond the pale of discussion; but the young early crave information regarding

these every-day displays of creative life, and are met with evasiveness or repression—so the gateway to confidential relations becomes more and more closed.

Sex a Quality of Soul.

To gain a clear knowledge of this underlying power of all activity, it must be fixed in mind that sex is a quality of soul; is a principle, not substance; is of the entire being, not merely of the reproductive system, though those are organs for its especial expression on the plane of generation. The male and female are the two equal principles through the co-operation of which advancement is made; both are equally necessary in the Great Plan.

When the influx of life drawn by the creative principle of sex begins, there is such a superabundance of life the young person does not know how to make use of the excess. He or she is most apt to hear from some source that the voice of passion is his for personal gratification alone, rather than the prompting to think and to do. Instead, it is Nature's spur to activity, and must be listened to in that sense for most of the days of life. There may and should come a time when maturity is reached that the power of sex will be used to generate on the physical plane; but these are rare times. No father and mother will think they can fully nourish and care for more than three or four children.

Says a writer: "There are two manifestations of this life; the building up or conserving of the body for mental and physical achievements, and, secondly, for the propagation of Man. In either direction life and energy are consumed. Nature points out the order of the development of these two lines of activity. Clearly, the development and the upbuilding and maturing of the body and the corresponding mental growth

within the body are the first in the point of time. Only after the body is fully developed and a life worthy of transmission is evolved, only after this is there a valid reason for perpetuation. The reverse of this order is bound to be more or less disastrous."

The gratification of any appetite of the body, whether natural or acquired, is not so much for the delight it brings as to cause a cessation of the craving. The acquired tobacco or alcohol habits are gratified that the craving shall temporarily cease. The perverted voice of passion is silenced by the same means. And the pervert sells himself for the pleasure he thus buys.

The Training of Childhood.

On the subject of keeping the child-mind pure, an author says: "Feeding such food as gravies, pies, tea and coffee to a five or ten-year-old angel from heaven would produce in it a tendency to self-abuse, avoiding all mention of a child of the earth, born with an inherited tendency."

The training of childhood has much to do with developing precocity in the sex nature. Regard must be given with reference to this, because the best development of the child demands it. Plain but nourishing food, abundant exercise and fresh air, with wise parental guidance, insure a normal unfolding of the powers of being. A girl, having the same human needs as a boy, must be given an equal opportunity. Restrictions on account of sex are as unwise as they are harmful. Mrs. Stetson says that "the most normal girl is the 'tom-boy'—whose numbers increase among us in these wiser days,—a healthy young creature, who is human through and through, not feminine till it is time to be. The most normal boy has calmness and gentleness, as well as vigor and courage. He is a human creature, as well as a male creature, and not aggress-

ively masculine till it is time to be. Childhood is not the period for marked manifestation of sex. That we encourage and admire shows our over-sexed condition."

A very foolish practice is that of suggesting lovers and sweethearts to infants, and teasing those who have just entered the adolescent period. Both practices pervert the normal child, stimulating sexual precocity in the young, and stultifying or befuddling the unfolding faculties of the older.

Parents Their Children's Comrades.

The true training will align the young mind with the forces of health, and bestow thereon the assurance of truth. Information as to the origin of life or the laws of life need not be beyond the demand or the capacity to understand. The parent must ever be the child's comrade and friend from the period of mud-pies and make-believe environment, on through life. If a question is propounded at a time when the parent is otherwise engaged, make an appointment for its consideration later on. From early infancy great care must be exercised that physical sensations do not become attractive. It is but the instrument of the personality that occupies it, and which must ever be under the domination of the ego.

Never begin in babyhood to shame one part of the body. Each function and each organ has its proper uses, all equally important. This knowledge should be communicated to the child. Also that there is a time, a place and a condition for all things, and what is out of harmony at one time will not be so in its own proper place. The beauty of modesty has a proper foundation, and crying shame against any portion or function of the body is not one of its planks. The toilet, the bath, the evacuations, belong to privacy after one has reached maturity, or even puberty. But it does not follow that these

most necessary attentions are disgraceful. They are really serious parts of preparations for activity.

In the second stanza quoted at the beginning of this chapter the line,

"Life hath quicksands, Life hath snares,"

is pregnant with meaning to mother-hearts. So many of the quicksands and snares have their foundation in the ignorance of the meaning of womanhood.

"I am more and more convinced that right knowledge is not only a safeguard of purity, but is really the creator of true modesty. To give a young person a reverent knowledge of self is to insure that delicacy of thought which preserves the bloom of modesty."—*Almost a Woman.*

The pathway of unfolding womanhood is beset with snares and pitfalls for unwary feet. Vaguely conscious of the law that masculine and feminine elements are complementary and necessary to each other, young girls are often easily led away by the unscrupulous of the other sex. Sometimes they are frightened into keeping virtue's pathway by being shown the goblins about them, but this means, like the one of using hell to scare people into heaven, is very questionable. It can never give a young woman the self-poise and assurance that enlightenment can. Caresses and love-words are acceptable to most woman-natures, but in the sense which leads to mating they are unsuitable for one in the early teens.

It should be pointed out to the daughter that comradery and friendliness with boy friends is all right, but that thoughts or talks of marriage are out of place for many years.

Evil of Sensational Literature.

The thrilling and unreal type of love-story should be kept out of sight. And the only way to prevent an eager unfolding

mind from laying hold of whatever comes in reach is to forestall the sensational literature with good reading. That class of story or biography which will aid in forming a wholesome ideal should be placed at hand and discussed so that the anxious young one will wish for self-investigation.

A taste for what is good in literature is as easily cultivated as a pernicious appetite, and is one of the most powerful aids in developing good thoughts and a good vocabulary.

Another of the chiefest principles to teach by example and precept is the duty of cheerfulness. Ella Wheeler's poem, "Laugh and the world laughs with you," rests upon the basic principle that cheerfulness is one of the beneficent laws of being. Health to one's self and joy to one's friends come from cheerfulness, which goes hand-in-hand with kindness.

Of one of the minor characters in "Adam Bede" George Eliot said: "His was one of those large-hearted, sweet-blooded natures that never know a narrow or a grudging thought; of a sufficiently subtle moral fiber to have an unwearying tenderness for obscure and monotone suffering." Those natures which carry an atmosphere of kindly cheerfulness are the graces of the world, the multiplication of which is sorely needed.

In instilling these beauties into the warp and woof of character, one must begin away back in infancy and teach the recognition of things joyous, and the non-recognition of the unpleasant things. The reverse is usually the rule. The common cry is, "How can I *not* recognize and bemoan that which goes wrong?" By simply not doing so, my sister woman. We become like that upon which our hearts are most fixed. And it is ungenerous to a child to allow the unpleasant features of the pathway of life to stand out most prominently. Emerson, the wise prophet, said: "There is no beautifier of com-

plexion, or form, or behavior, like the wish to scatter joy and not pain around us." If we learn to search for the joyous in life for ourselves it will, in greater or less degree, be communicated to those with whom we come in contact. Whatever mood we set forth will unerringly return; if joy is scattered, joy comes back; if ill-natured pessimism goes from us, it rebounds in despondency. Earth's lovable children are those who possess cheerfulness either through heredity or cultivation.

"Gather, then, each flower that grows,
When the young heart overflows."

Nothing is misery unless our weakness makes it so.

Character Formed by Training.

Equilibrium of character is generated by training the feminine faculties toward the work that shall be hers.

As in the past, so largely in the present, a boy is taught to consider what he shall do—the girl whom she shall marry. And marriage is just as likely the lot of the boy as of the girl. This is training the girl to make capital of her sex, and is one of the bars to social evolution. Marriage should not be the business of a girl's life—no more than that of her brother's. This relation has its own beautiful place, but it is a condition and not a business.

A young woman who makes of herself the best possible being, physically, morally, mentally, socially, is fitting herself for a possible wifehood and motherhood. This is true of her brother. Both will study specifically what parenthood means before the condition is theirs to live. Motherhood and wifehood have their embryonic germs in every normal girl. And the best parents develop from the young of both sexes who love the real beauties of life, which include babies.

Specialized taste for some branch of industry will begin manifesting itself when the influx of the larger life is distinctly felt. Aspirations begin flitting through the brain. Chance dream follows chance dream, until a final preference is made after due consideration of the matter. Then all the thoughts and acts are shaped with reference thereto, and, as Fra Elbertus says, "without violence or direction the goal is reached." . The ideal begins to be lived. All effort which has the inspiration of hope and love uplifts the character. Just in the proportion that work is made interesting and pleasant will there be progress.

The Equality of the Sexes.

An age-long theory or superstition held women to be the inferiors of men; but in proof that there is growth and progress many women are breaking away from the restraints that have held them, and are demonstrating their ability to stand alone as far as intellectual development and the power of self-sustainment goes.

It is the law, however, that men and women cannot be wholly independent of each other. "Male and female created He them." From the good which is the outgrowth of their true relations is generated soil for the growth of each along their independent lines of work. A reverent consideration of this law is one of earth's sore needs. Young people, young girls, should be so imbued with high feeling for this department of being that they would not speak carelessly of it, nor drag it through the mire of thoughtless jest. These be matters for the sanctuary of the holy of holies.

Most of the relationships between the social throng of men and women are as honest friends and comrades. The past generations were wont to regard every man as the possible enemy of every woman's virtue, and that the weaker sex

must be constantly on the defensive. In the old-world countries this is yet largely true. But in the glad time when all the youth are enlightened as to the real functions of manhood and womanhood, adaptability and attraction will be the only basis for union, and this will be true marriage. The human relation can be then more beautifully upheld without the idea of sex-difference constantly obtruding itself.

There is nothing to fear in truth, and the unfolding of womanhood is best shielded and guarded when there is conscious knowledge of the glorious possibilities inherent in the quality of sex, which in every human being holds the balance of power.

CHAPTER VI.

The Fulfillment of the Law.

AFTER the unfolding of the flower of womanhood, the next progressive step in femininity is the discovery of the other one whose being shall be complementary to her own. She who is most truly woman will naturally be much attracted by masculine society, but if her mind has been so carefully trained that the self-poise and dignity of womanhood is understood, she will not lend herself to promiscuous affairs of the heart. Until mind and body are fully matured only the spirit of comradery should prevail between the young. Under hot-house unfoldment the powers of sex are not hardy, and are most liable to misappropriation, because reason and judgment have not proportionately developed. But love is the fulfillment of the law. It is the second round in the ladder of progress, and must permeate every avenue of life for man and woman as the warm glow of the sun thrills the world of matter, or growth is retarded.

Emerson on Love.

Emerson says: "Love is omnipresent in nature as motive and reward. Love is our highest word and the synonym of God.

" * * * It is a fire that, kindling its first embers in the narrow nook of a private bosom, caught from a wandering spark out of another private heart, grows and enlarges until it

warms and beams upon multitudes of men and women, upon the universal heart of all, and so lights up the whole world and all nature with its generous flame. It matters not whether we attempt to describe the passion at twenty, at thirty, or at eighty years. He who paints it at the first period will lose some of its later; he who paints it at the last, some of the earlier traits. Only it is to be hoped that by patience and the muses' aid we may attain to that inward view of the law which shall describe a truth ever young, ever beautiful, so central that it shall commend itself to the eye, at whatever angle beholden."

In the same essay Emerson asserts that this is preparation "for a love which knows not sex, nor person, nor partiality, but which seeketh virtue and wisdom everywhere, to the end of increasing virtue and wisdom."

It seems a simple thing to love and be loved; but it is so only in seeming. In reality it is one of the serious questions how properly to align one's self with this universal law. It is a subject open to sincere study. One of the present-day writers says:

"Ideal marriage, barring that of a blind man and deaf mute, is rare. It is the ante-nuptial condition that is charmful. That the post-nuptial state should be occasionally different is but natural. It is easier to be a lover than it is to be a husband—or even a wife—for the same reason that it is easier to be witty now and then than all the time.

"Yet, like the ideal marriage, the lover who knows his business is rare. That business consists in never seeing or hearing anything which was not intended for him. He is not only near-sighted and hard of hearing—he is wise. He is aware that affections are like slippers—they will wear out. When they do he takes off his hat and wishes the lady God-speed—an attribute parenthetically which is the surest way to

detain her. In circumstances such as these the man who does not know his business loses his head, and loses it not because he has lost his lady's heart, but because her heart happened to be different from what he thought it. He had his ideal of her and feels that he has been swindled. No one likes that. And yet the swindle may be entirely his own.

"A woman, too, has ideals. It is not sacrifices she wants, but sympathy, the companionship of one whose likes are hers, whose dislikes she can share, and, as now and again occurs, she discovers that the man whom she took to be the possessor of these attributes is merely an individual who has the power to exasperate her at every angle of life. It is then that she packs up her heart and he fails to take off his hat.

"A condition of affairs such as that, without being epidemic, is common enough. To remedy it there is a choice between the Chinese system and higher education."

Need of the Higher Education.

It is the higher education—that which quickens mind and spirit—that is needed; a knowledge of some of the underlying principles of the attractiveness between men and women. The completeness each growing soul longs for is attained by a man and a woman. Each should contribute toward oneness, by careful cultivation of the flower of love, and by reaching out for unfoldment toward those things that are good and true and beautiful.

The Yale professor who called forth many vials of wrath upon himself by saying not ten per cent of married people realized their ante-nuptial ideals, was not far from the right. Few young people who marry have clear-cut ideals. They, in a hazy, uncertain way, expect marriage with a beloved one to yield joy complete; when, according to the law of progress,

the mere fact of marriage cannot render one completely happy. By assuming this relation they are placed in position for proper advancement, providing it is in accordance with natural selection. Then, as a beautiful plant is watched and cared for, so must be the attraction which drew together man and wife. It cannot be left to care for itself in the present world of storm, stress and adversity, or it will surely die.

The old-time idea that marriage removed the taint of sensuality is worn out. As Lady Cook said, "If one were driven into a corner for an argument against the existing marriage system, it would only be necessary to refer to the records of the divorce courts during one short year." But even the divorce courts are signs that "the world do move." Whereas marriage formerly meant a union for life "for better or for worse," it is now beginning to mean, if not for *better,* not at all. Higher social conditions mean higher ideals; and, though the social fabric is now in the throes of change from a lower to a higher standard, all evidence points to the bettering of lines in and upon which we live and move.

Teaching the Laws of Life.

Preparation for a thorough understanding of life's laws must begin as soon as a child manifests any desire to know of the origin of life. Then the growth of knowledge on this most beneficent department of nature will be uniform with growth in other directions. Abnormality in the sexual appetite is thereby forestalled. The first lesson continues until the approach of puberty; then the second lesson as to the physical and psychical changes which will take place is in order. The home should be the place—

"Where children are taught to be laws unto themselves and to depend on themselves."

The third lesson for the young may deal with the question of mating. If the first instructions have been what they should be and have led the young mind above and outside of itself, this pregnant step in advancement will not be so difficult to approach as it seems. Parents are very much aided by having a wise selection of books at hand. When this question has suggested itself in perspective, the youthful mind seizes upon all manner of means for enlightenment. To the shame of humankind be it said that all knowledge on this subject of mating in past generations had to be received from concealed or unholy sources. As Dr. Wilcox says, "A good book on the physiology and ethics of the sex life ought not to be out of place on the center table or the mantel." When we are able to live the regenerate life, all possible light will not be out of place in the family circle. In fact it will go along with other instruction which tends to keep the windows of the soul open heavenward.

A young woman who has not lived a life isolated from the other sex is more in command of her powers in men's presence than she who has been kept away from them. It is a very frequent occurrence that girls released from a convent education heedlessly marry the first importunate suitor. She yields to the inscrutable attraction of the sexes without analysis of her feelings, or what the estate of marriage may mean. "Friendship fills the background of all true love," says the author of "Ethical Marriage," "and those lovers who are unacquainted with friendship's austere sincerity are in the thrall of animal passion. Marriage is a permanent companionship for purposeful work and healthful play, and it is idle to enter into it unless the parties to it are moved by the strong force of tested and faithful friendship."

Acquaintance with aims and desires aids each of a pair of

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lovers to know whether they can co-operate. They *must* know whether they can comprehend each other's ideals and efforts to their attainment.

A Brilliant Frenchman's View.

Max O'Rell said: "A woman should marry young, very young even, so that her husband shall enjoy all the different phases of her beauty from the beauty of her girlhood to that of second youth, or matronly beauty, which, to my mind, is best of all. It is perhaps at forty that a woman is most strikingly handsome; invariably so when she has taken care of herself and has been loved and petted by husband and children alike. It is then that she knows how to make the best of herself, that she best understands how to exercise her gifts and charms in the most effective manner."

To men he said: "Never marry a woman richer than you, or one older than you. Be always gently superior to your wife in fortune, in size and age, so that in every possible way she may appeal to you for help or protection, either through your purse, your strength or your experience in life. Marry her at an age that will always enable you to play with her all the different characteristic parts of a husband, a chum, a lover, an adviser, a protector and just a tiny suspicion of a father."

A German Opinion.

This is a Frenchman's point of view. Another from a German point of view is truer from the idea of equality: "Marriage is more than the means of setting up housekeeping and founding a family; the upward striving toward perfection is more than a dark longing for an object that may agreeably occupy the emotions and the imagination. It is the longing equivalent to a noble life, toward the perfection of our being

through the union with a being in harmony with ourselves; toward the complete satisfaction of our personality by becoming one with another personality, by a blending of souls that perfects both as the blending of two metals results in a third that is superior to and more endurable than either alone. It is finally the need that every nobler individual feels for the realization of the ideal, a realization we look for in vain in every direction and which life can offer us nowhere but in true love. Whithersoever a man's fancy, his discoveries, or aspirations, may lead him, nothing in the whole domain of nature can take the place of the relationship that true love unfolds to two thinking and harmonious beings. Such love is true life."

A great many of the considerations for a correct marriage should, while the heart is fancy-free, be kept well to the fore. It almost goes without saying that mental tastes should be similar. Very much marital misery is occasioned through lack of balance here. The science of phrenology often aids young people to find companions of suitable mental caliber.

Mental Adaptation, or Harmony.

The following on mental harmony is from Dr. Foote:

"Mental adaptation, in marriage, consists in at least an approximate correspondence in the tastes, sentiments and propensities of husband and wife. * * * The possession of high moral and religious sentiments by one and a total destitution of them in the other is frequently the cause of matrimonial discords and separations. How can a pious wife enjoy the society of a husband who forbids her devotional exercises? How can a devotional husband have a wife who neither sympathizes with nor participates in his religious sentiments, while

by precept and example she trains up his children regardless of his cherished principles?

"The organ of inhabitiveness when largely developed gives attachment to home and love of country. A wife possessing a full development of this organ can never live happily with a husband whose inhabitiveness is small. He will ever be on the move, like the rolling stone, and his wife must sacrifice her love of home and a permanent location by following in his wake, or else let him go, and content herself in loneliness.

" * * * The organ of philoprogenitiveness makes its possessor very fond of children. If the wife has this faculty small and the husband large, the latter is decidedly inclined to find fault with her management of the children, and bickerings arise from this cause. * * * As the principal training and care of a child devolves upon the mother, large philoprogenitiveness is more essential to her.

"Adhesiveness is an organ that begets powerful attachments. It is the chief prompter of a platonic love. It leads the person to seek the society of those who have similar proclivities, and seals congenial acquaintance with enduring friendship. If the husband lacks this quality of mind the wife ever laments his want of fraternal affection—feels that he married her more for the gratification of his animal desires than for her society. If the wife is destitute of this organ she is generally cold and repulsive, except when aroused by amative excitement.

"Many husbands and wives possess an equal development of the organ of amativeness, and still have not the necessary physical adaptation to make each other happy. Two persons may possess an equal development of the organ of adhesiveness and yet fail to become friends for want of congeniality in other respects. * * *

"The intellectual powers should be about equal, however diverse in character; no wife can respect a husband who is inferior, and without respect there is no real love. Nor can any intelligent husband enjoy the society of a wife who is ignorant and perhaps uncouth. * * *

"Passional love, which warms up only at intervals, can not long render the pair blind to mental disparity. And then, too, where passion has been the governing attraction, and age cools down the impulses of early manhood and womanhood, nothing is left to render their matrimonial relations even tolerable. * * * There must also exist that mental and moral congeniality which produces powerful friendship—friendship which would be deep and lasting were sexual considerations unthought of."

The Law of Physical Adaptation.

In physical characteristics by which temperaments are made manifest the law of opposites rules. The dark should mate with the fair, the plump with the slender, the tall with the short. The thoroughly feminine admires the thoroughly masculine. To observe these things is to be placed in harmony with natural law, which, Henry Wood says, "is a loving force, persistent, reliable, always in its place and pressing to do its work." Furthermore he says: "It is this invariableness which enables us to use it and make it serviceable. While, therefore, it is true we are always under its sovereignty, it is no less a fact that when we comply with its conditions it becomes our most valuable and indispensable co-worker. Its powerful aid, like that of steam or electricity, is always in waiting, only we must not dictate its methods of operation."

Having aligned ourselves with natural law, it will then do its perfect work. Those whose aspirations lead them upward

through the fields of progress soon attain to the point where the fact of sex is seldom asserted. We may know the law—male and female created He them—know the associations are necessary, therefore good, adjust ourselves to the conditions and think no more about them. It is only on the basis of cleanness that honor between men and women may be realized.

Purity of Thought a Requisite.

Young persons in pursuit of the fulfillment of the law must come into the wholesomeness of purity of thought. When this has been gained, the opposite sexes can discuss questions relating to the estate of marriage without self-consciousness or false modesty.

Mrs. Whitney says: "In olden times and under the olden civilizations which continue unchanged in oriental countries up to the present time, there was not a thought that men and women could associate on intimate terms in honorable relations as friends and companions and helpers. The idea is, perhaps, the prevalent one throughout the world. But there is a higher, truer, purer idea in the minds of the best people, and the intercourse of men and women in business and professions and reforms is demonstrating it to be a fact that they can associate on the human plane and help each other and work together with no thought of their difference in sex.

" * * * In the old dispensation, to man every woman was a possible victim, and to woman every man was an enemy, and she could maintain her virtue only by constant vigilance and a war of defense. In contrast with this see the pure chivalry of the best men of our time, which is met by the most complete confidence of the best women."

To the pure in mind all things are pure. It has never been wise to ignore creative law, and in the present day it is not

forgivable. The holiest relation of the sexes must be placed beyond the question of commercial or social advantage, and comply with natural selection and the deepest needs of humanity. Marriage must come to be arranged with reference to inner needs. While its failures cause it to be a debatable question, yet so long as sympathy, companionship, affection and co-operation are deep soul-longings the experiment of mating will be apt to go on.

Let the propensities of human nature be guided by the better self, and they will give strength for the attainment of all that is worth striving for.

Love must be acknowledged as a fact, and as a controlling factor in proper living. The more fully it is expressed the richer becomes individual life, and the benediction is shed on all who come within the circle of its radiance.

"That love for one from which there doth not spring
Wide love for all is but a worthless thing."—*Lowell.*

PART I.

CHAPTER VII.

The Fruits of Fulfillment.

THE great sun in the soul-heavens is love; love the fulfillment of the law, the quickener of the powers of being. The fruits of fulfillment are as varied as in the objective world, where growth depends on the amount of sunlight received. But in this connection the fruits of fulfilling the law will be considered in the specific sense of the mating of one man and one woman. The higher conception of the term marriage is beyond and wholly outside of any legal enactment. People may place themselves in harmony with external conditions by going through the forms necessary for public recognition of a purely personal and private relation, but the mere "I-pronounce-you-man-and-wife" is not marriage. Perfect marriage can only be based upon attraction and natural adaptability.

The fruits of love in marriage may be said to be growth and development of the united pair, and offspring. If there is not a true union there should be no children. Homes of inharmony produce the cross-grained and contentious of the world—which results are retarding progress.

Happiness in the marriage relation is often marred by trifles, whose inroads are so slow they are not noticed until almost too late to mend. Jesting leads sometimes to quarreling, thence to misunderstandings and lack of confidence. There

must be a broad basis of friendly confidence, so that misunderstandings, slights, irritability of temperament, can be discussed with a view to future prevention.

A Wise Woman's Experience.

Fowler quotes a lady as saying: "When I married only one point of similarity and sympathy existed between myself and husband. I soon found that discussing our differences only aggravated them, and adopted this inflexible rule: never to argue points of dissimilarity, but simply to establish harmony on the one point on which we agreed. This soon created concord on another keynote, cherishing which soon brought us into union upon a third, and so on till now every discordant note has become concordant, and we live most happily." Wise woman that.

Many who are able to win a heart's best love seem unable to retain it after the first few weeks of wedded life. And this is largely due to a lowering of the standard of behavior. The outside legal tie is made to serve in place of the commanding of mutual respect through the manifestations of true manliness and womanliness.

If the affairs of marriage have not been discussed during the days of courtship, two people can hardly realize what the ideals of each other may be. No pair is fit for marriage who cannot frankly and fully discuss the relation of the sexes, and the duties each bears to the other. Kindness, courtesy, unselfishness must needs be practiced by both more unfailingly after the I-pronounce-you than before.

A popular fallacy is that marriage removes a pair from the close friendships of friends. Not infrequently one hears that a husband or wife is jealous of friends. Jealousy is a green-eyed monster that makes the food it feeds upon. No well-

balanced person but has the power to lift himself to a plane so high that jealousy can not obtrude. The duties of matrimony must not close the door to the larger life of friendship, or the avenues for growth are closed. Of this Professor Wilcox says: "It is the orthodox doctrine of marriage under the present regime of romance that lovers and married people should find in each other the sufficient satisfaction of every legitimate want. It is supposed that once a life alliance is made the legitimate function of friendship is fulfilled, and that straightway correspondences must be closed and that personal relationships must be broken off in order that love and duty may be concentrated in the home. Friendships may, perhaps, be outgrown by the divergence in interests and ideals, but the mere fact of betrothal or marriage furnishes the most absurd of reasons for cutting any vital cord of sympathy or co-operation that may exist between any two persons in the world. Who believes that marriage thrives on isolation? that a woman will be a better wife and mother if she enters into the soul-life of only one man? that a man will be a better husband and father if he cherish the sympathy of only one woman? True, the home calls for specialization of effort and care, but every specialization brings with it more and more dependence on outside relationships. The household life will be self-consuming if it is not fed by wider associations. Every friendship of husband and wife will add riches to the home store.

"Friendships are the spiritual doors and windows of the home through which the universal light and air find entrance."

Progress is one of the laws that must be recognized to make wedded life all it should be. To close all the avenues of good that outside atmosphere can bring, encourages narrow-

ness and selfishness, two negative qualities we must strive against.

The Unfoldment of Family Life.

Were each to understand the words, "You must grow to new heights if I love you tomorrow," neither would dare, for dear love's sake, to settle down to the mental and moral lassitude so common in marriage. Family life, to be profitable to the members of which it is made up, must unfold in mental, moral and material strength. Its power is hampered if development is only on one or two lines.

The tendency of the times is toward small families of children. Fewer children and better is a good motto; especially should they be *few* if parents do not know the laws of life well enough to insure *better* ones.

Mutual attachment of parents is more firmly cemented by children in the home. A natural need of the individual is gratified in true family relations, which enables the souls of its members to expand and grow like leaves in the sunshine. "The woman is to the man only the complement of his being, in and with whom he begins to live his complete life," said Heingen. Vice versa. Again this philosopher tells us: "The family is inconceivable without real marriage, marriage is inconceivable without love, and love can no longer be distinguished from prostitution when the bond of union is vitiated by compulsion. If propagation is to have an ethical significance and ethical consequence it must not proceed on the plane of bestial association, and just as little in false or forced relationships. Every child that springs from a union which would have ceased had not external considerations or binding fetters held it together, transmits the curse of the misfortune and of the immorality to the next generation."

The requisite for having well-born babies is, according to Dr. Elliott:

First. That the parents be well-mated.

Second. That they are in a condition of health.

Third. That their own tendencies to evil have been overcome to the best of their ability.

Fourth. That they should take advantage of the molding powers of prenatal influences.

Grant Allen said: "It is good for every man among us that he and every other man should be as strong, as well-knit, as supple, as wholesome, as effective, as free from vice or defect as possible. We see clearly that it is his first duty to make his own muscles, his own organs, his own bodily functions, as perfect as he can make them, and to transmit them in like perfection unspoiled to his descendants. We see clearly that it is good for every woman among us that she and every other woman should be as physically developed and as finely equipped for her place as mother as it is possible to make herself. * * * We see that to prepare ourselves for the duties of paternity and maternity by making ourselves as vigorous and healthful as we can be is a duty we all owe to our children unborn and to one another."

To be our best selves, then, is to be properly prepared for parenthood. Wise and loving generation only can lift the status of civilization.

The Complementary Life of Marriage.

The complementary life which well-mated pairs are enabled to live is another of the fruits of fulfilling the law of love.

"For woman is not undeveloped man,
But diverse: could we make her as the man,
Sweet love were slain: his dearest bond is this,
Not like to like, but like in difference."

One supplies deficiencies of the other. Harmonious mental and moral growth rests upon the integrity of conjugal love-life; which thought brings us to the consideration of means for preserving the male and female attraction each must at some time have held for the other in order to assume the marriage relation.

Two views held on this subject,—which differ only in the degree of expression of creative life,—are well worth intelligent thought.

The first is that complete blending of the sexual natures is only proper and necessary where propagation is desired. Dr. Cowan and Professor Fowler are notable among the older writers on the subject. One of Fowler's illustrations is the following:

"A and B have an equal amount of sexuality. A consumes his in coition, which leaves his voice, manners, posture, spirit, intellect, etc., bereft of it. B continently retains his, only to have it worked off in imparting sex to his voice, walk, actions, etc.; nobleness and courage to his feelings, with gallantry to women and admiration and love to the sex, and that treatment that wins their regard. You can't consume your sexual cake in both forms. Choose whether you will do so in the animal or in those nobler aspects of masculinity."

The creative life consumed in frequent intercourse is injurious, robbing a wedded pair of the essential principle for preserving the gentleness and courtesy due one another. Love expressed in kindliness, in kisses and caresses, yields the necessary element the sexes have for each other. Love expressed only in the sexual embrace to the full propagative act yields less than the vitality it consumes, besides making a chance conception probable.

Continence the Law of Love.

Fowler asserts that no semen is deposited in the seminal vesicles if the mind is held above the animal plane. "Continence," he says, "except in wedlock, and then only to propagate, is therefore the natural law of love."

Dr. Cowan advocated procreation every three years; Fowler every two years; others only so often as children are desired, be it five or ten years.

Other humanitarians advocate the possibility and the desirability of the conjugal embrace, provided it is not allowed to go beyond the bounds of a love embrace and be made propagative. In this sacrament of blending there must be no haste, no animality—just a quiet exaltation of the entire being of that twain who are one flesh. The nervous spasm called the orgasm is avoided; therefore all danger of chance conception is forestalled. This alone is immeasurably desirable to every wife, and should be equally as much to husbands.

Preventives to Conception.

The use of prevalent preventives to conception is also done away with through this method of expression. Few preventives are absolutely sure; and, truly, the use of *any* such blurs the spirituality of conjugal love. The full, free blending of the male and female life,—spiritual, emotional and physical,—without fear of results, is productive of such beneficent powers for activity no married lovers will ever return to the animal plane who once taste of its blessings.

One of the later-day writers says: "Given abundant time and mutual reciprocity, the interchange becomes satisfactory and complete without emission or crisis by either party. In the course of an hour the physical tension subsides, the spiritual exaltation increases, and not uncommonly visions of a

transcendent life are seen, and consciousness of new powers are experienced."

Another says: "When married people once learn how to enjoy the sexual association according to this method, they will not wish to do otherwise, except by design, for the purpose of securing offspring. Many barren women have become capable of bearing children through the strength obtained by practice of this method of union."

An eminent physician has given it as his opinion that the widespread habits of using tobacco, alcohol and other stimulants have rise in the waste of vital force in incontinence in marriage and out. These habits act and re-act on each other so that it is rare to find a person defiling the temple of the soul by one means alone. Any one of these habits robs an individual of power to think and will to do that which is in harmony with good old mother Nature, and therefore right.

The truly mated wise enough to preserve the sweetness and warmth of honeymoon days will be comrades and lovers.

The Old, Sweet Story, Always New.

The old, old story is always fresher and sweeter with each telling if kind and courteous acts testify to the truth of the words. Time never has lessened the need of the human soul for affection, nor dimmed the necessity of blending of the sexes. Those matured people who are deprived or deprive themselves of this indispensable element may be recognized by the hardness of feature and dearth of kindly deeds. Men sometimes allow the pursuit of wealth to absorb them to the exclusion of the wine of life, which is love. They forget to be lovers to their wives and fathers to their babies. It has been said that there are more restless women between the ages of thirty-five and fifty than of younger years. There are, of

course, causes for this condition. The widowed, the mismated, the unloved—alas the day!—are in the majority. Many of them—perhaps most of them—are unfitted by nature or training to do life's battles. Many who think women should have a purpose in life besides her female relationship to society, are met with opposition in the family or among friends, so that desire to do is frustrated, unless there is the strength to override obstacles. One disappointed little woman said this: "I do not exactly know what is meant by a 'career,' but I think it must be that thing which lies nearest your heart; that most sacred of all endowments of the Divine Creator. But because your wisdom is so much inferior to His you know it is one which should not have been given you, and which you must crush out, as He certainly made a mistake in giving it to you, and it is not meant for your well-being. It is that thing which, when you think of its perfect fulfillment, causes a lump to come into your breast and rise up and up till it stops your breath and fairly chokes you, and you gasp and say, 'Oh, if it could only be!'"

Another who had the talent to write beautiful, helpful stories—who has written for the best periodicals—is allowing her powers to lie unused because her husband insists on her being just his wife—and the superintendent of his household. Such cases as this illustrate what Spencer says about unselfishness being harmful beyond a certain degree. Talents are to be used, and used in their natural bent. They must not be given up because some one else, without rhyme or reason, insists upon it. Women can and should follow their life-work as well as their brother, man. The woman with an occupation suitable to her desires and liking will not be among the restless and unsettled. Even if her love-life has not fulfilled its best promises, the channel can be turned into universal love for

all creatures, and joy and hope gleaned therefrom. There is no excuse for that selfishness which, because one has met obstacles, or has been bereaved, causes one to retire into one's self and grieve. The only panacea for any grief is activity, which takes consciousness outside of one's self. Those who hold for long at trials or obstacles miss the proper moral exercise for strengthening character. All heights are accessible to her or him who will work for success.

Fra Elbertus says: "The man who thinks out what he wants to do, and then works, and works hard, will win; and no others do, or ever have, or can—God will not have it so."

PART I.

CHAPTER VIII.

Home and Home-Making.

WHILE society can not be considered as fragmentary, with divided interests, yet there are individual needs to be satisfied for individual weal. In response to these needs, home was established. Every human being has need of a habitation where there is repose for mind and body; where private attention may be given to individual tastes and necessities; where habits may be trained that will help to form character, until the human mind can know itself, and so be beyond the power of habit.

Home life does not necessarily mean married life. Man, in common with all higher animals, has "the homestead instinct," which is associated with the natural desire for domestic privacy. Following instinctive want of a place of safety, of a place in which to rear a brood of offspring, home became an institution.

The majority of homes are made up of father, mother, and children; and where the binding tie is love, and there is harmony and progress, it is the ideal place of refuge. But the detached members of families have the home instinct the same as their more fortunate brethren and sisters, and the sense of being unsettled often leads to ill-considered marriages. For this reason it is always well for two, or three, or more, con-

genial people to set up for themselves their household gods, until the right opportunity comes for marriage. Boarding-houses and hotels have been made to serve for these parts of families, and sometimes for families, but it is very seldom a sense of hominess pervades their atmosphere.

The more progressive of "bachelor girls" have begun to establish households and live as befit creatures of civilization. The bachelor *man,* somewhat in advance of his sisters, has been doing the same. Conservative society sometimes arouses itself sufficiently to object to these unmarried households, on the ground that they interfere with the founding of family homes. This is only true as far as the inferior, or the not true, marriage is concerned. Attraction between the sexes is a fact in nature. It is a law that no private arrangement of humankind can set aside; and if bachelor households shall do away with marriages of convenience, the more of them the better.

At the present stage of development, home life largely suffers because of unskilled management. The kind of skill needful to adjust affairs successfully has not been considered necessary to train for, and, as Mrs. Stetson says, "there are several professions involved in our clumsy method of housekeeping. A good cook is not necessarily a good manager, nor a good manager an accurate and thorough cleaner, nor a good cleaner a wise purchaser. Under the free development of these branches a woman would choose her profession, train for it and become a most valuable functionary in her own branch, all the while living in her own home; that is, she would live in it as a man lives in his home, spending certain hours of the day at work and others at home."

The onward march of progress has led woman outside of the four walls of home and the work of the church. Fifty

years ago, very few avenues were open for the expression of woman's activities outside of the household. To be self-sustaining had a sound of something improper. "Has she no *man* to keep her?" But the growing spirit of freedom causes the able-bodied, wholesome-minded woman not to want to be "kept." She desires to be strong and secure in her own strength as a human, and not to be "taken care of" as an adjunct of the masculine sex.

The Changes of a Century.

The following by Mrs. Sangster expresses the changes the past century brought about for woman:

"IN NOTHING is the march of progress more evident than in the present attitude of woman toward life, as compared with the point of view of her predecessor. The change is as marked as that from the candles of the opening nineteenth to the electric lights of the opening twentieth century. A hundred years ago woman was a timid being, to be sheltered and protected, to be worshiped and complimented, and she lived up to the ideal men then held as peculiarly feminine. She had great reserves of bravery and patriotism under her delicate exterior —for in every age womanhood remains the same in essentials —but she by no means met man on equal terms in any field. The dawn of the old century found women with few business opportunities and somewhat restricted educational privileges. Here and there was a learned woman, and many women were clever, resourceful and intelligent, but the curriculum designed for the sex was less strenuous and less expansive than that of today. Few girls went further than the common school, topped off with a foam of graceful accomplishments.

"Marriage was the feminine goal. She who did not marry was regarded with compassion as a failure, and her parents were openly pitied. After marriage, the average woman re-

tired into the seclusion of her home, and it is not too much to say that at fifty she was frankly old. The young ruled in the drawing-room, and the atmosphere was crude in consequence. Mothers are as needful to society as daughters in their bloom, and this the new century acknowledges with pride.

"The woman doctor, the woman lawyer, the woman journalist and the trained nurse were unknown when the nineteenth century began. The twentieth would be bewildered without them. In the old days, woman's activities were limited to home management and church work. Housekeeping bristled with various labors. Soap and candles were of domestic manufacture, crushed sugar was broken off the loaf by the bit, there were no sewing-machines, nor wringers, nor stationary tubs, nor could pickles and conserves be purchased. Ready-made clothing could not be bought. Nevertheless, this busy housewife was a voluminous letter-writer, crossing and re-crossing her gossipy sheets to save postage; she was often a deft amateur surgeon, and had remedies on hand for the family ills. She was a good neighbor and a stanch friend, and her manners were formal and elegant. Somehow she had more time than we have for little courtesies.

"In the new century woman's sphere has grown larger. Her charities are broader, though less intimate and individual. Their objects are greatly multiplied. Among her most beneficent fads must be classed her zeal for town and city adornment, for clean streets, and for reformed ash-barrels. She looks after the waifs and strays of civilization, peers into almshouse and prison cell, and fights cruelty to dumb animals. An inborn and inherited hatred of dirt and disorder leads her to combat both wherever she finds them, and her finger is often in the municipal pie to its manifest advantage.

"The most conspicuous fad of the new century woman is devotion to athletics. Our girls of today are magnificently vital, splendid specimens of health, beauty and endurance; they are taller than their mothers, and carry themselves with an air of distinction in keeping with their superb stature and elastic strength. Outdoor exercise confers on them color, grace and vigor; they play the games of the hour with skill and audacity, and their wholesome life in the open has given them a charm far in excess of semi-individualism and interesting fragility. The fad of the new century woman is to be ready for anything, broadly educated, spiritually enlightened, and physically equal to every demand."

"Woman's Sphere."

The forces of inertia, the conservatives, still prate about "woman's sphere," and, had they despotic power, would force all of womankind to domestic service until the inevitable rebellion would come.

"If a modern man, with all his intellect and energy and resource, were forced to spend all his days hunting with a bow and arrow, fishing with a bone-pointed spear, waiting hungrily on his traps and snares in hope of prey, he could not bring to his children or to his wife the uplifting influences of the true manhood of our time," says Mrs. Stetson. "Even if he started with a college education, even if he had large books to read (when he had time to read them) and improving conversation, still the economic efforts of his life, the steady daily pressure of what he had to do for his living, would check the growth of higher powers. If all men had to be hunters from day to day, the world would be savage still. While all women have to be house servants from day to day, we are still a servile world.

"A home life with a dependent mother, a servant wife, is not an ennobling influence. We feel this at times. The man, spreading and growing with the world's great growth, comes home and settles into the tiny talk and fret, or the alluring animal comfort of the place, with a distinct sense of coming down. It is pleasant, it is gratifying to every sense, it is kept warm and soft and pretty to suit the needs of the smaller and feebler creature who is forced to stay in it. It is even considered a virtue for the man to stay in it and to prize it, to value his slippers and his newspaper, his hearth fire and his supper table, his spring bed and his clean clothes, above any other interests.

"The harm does not lie in loving home and in staying there, as one can, but in the kind of home and the kind of womanhood that it fosters; in the grade of industrial development on which it rests."

If advancement has gone on while working against the tendency to remain stationary, how much more swiftly will it advance after this resistance has been overcome?

Man and woman cannot, in harmony with nature's laws, occupy separate, distinctive spheres of activity. Together an energy is generated not possible where working alone. It is the force of sex diffusing itself through exertions; the force which most often is allowed only to be generated in the drawing-room and ball-room and which does not there find the best avenues for use.

Haying Time in Scotland.

The author of "Little Journeys to the Homes of English Authors" illustrates this law in the following:

"The Scotch are great economists—the greatest in the world. Adam Smith, the father of the science of economics, was a

Scotchman, and Draper, author of 'A History of Civilization,' flatly declares that Adam Smith's 'Wealth of Nations' has influenced the people of earth for good more than any book ever written—save none. The Scotch are great conservators of energy.

"The practice of pairing men and women in the hay-field gets the work done. One man and woman going down the grass-grown path afield might linger and dally by the way. They would never make hay, but a company of a dozen or more men and women would not only reach the field but would do a lot of work. In Scotland the hay-harvest is short—when the grass is in bloom, just right to make the best hay, it must be cut. And so the men and women, the boys and girls sally forth. It is a jolly picnic time, looked forward to with fond anticipation, and gazed back upon with sweet, sad memories, or otherwise, as the case may be.

"But they all make hay while the sun shines and count it joy. Liberties are allowed during haying time that otherwise would be declared scandalous; during haying time the Kirk waives her censor's right, and priest and people mingle joyously.

"Wives are not jealous during hay-harvest, and husbands never fault-finding, because they each get even by allowing a mutual license.

"In Scotland during haying time every married man works alongside of some other man's wife. To the psychologist it is somewhat curious how the desire for propriety is overridden by a stronger desire—the desire for the shilling. The Scotch farmer says 'anything to get the hay in'—and by loosening a bit the strict bands of social custom the hay is harvested.

"In the hay-harvest the law of natural selection holds; and trysts continue year after year. Old lovers meet, touch hands

in a friendly scuffle for a fork, drink from the same jug, recline at noon and eat lunch in the shade of a friendly stack and talk to heart's content as they Maud Muller on a summer's day.

"Of course this joyousness of the haying time is not wholly monopolized by the Scotch. Haven't you seen the jolly haying parties in Southern Germany, France, Switzerland and the Tyrol? How the bright costumes of the men and jaunty attire of the women gleam in the glad sunshine! But the practice of pairing is carried to a degree of perfection in Scotland that I have not noticed elsewhere. Surely it is a great economic scheme!

"It is like that invention of a Connecticut man which utilizes the ebb and flow of the ocean tides to turn a grist-mill. And it seems queer that no one has ever attempted to utilize the waste of dynamic force involved in the maintenance of the company sofa.

"In Ayrshire I have started out with a haying party of twenty—ten men and ten women—at six o'clock in the morning, and worked until six at night. I never worked so hard or did so much. All day long there was a fire of jolly jokes and gibes, interspersed with song, while beneath all ran a gentle hum of confidential interchange of thought. The man who owned the field was there to direct our efforts and to urge us on by merry raillery, threat and joyous rivalry. The point in this—we did the work.

"Take heed, ye Captains of Industry, and note this truth, that when men and women work together, under right influences, much good is accomplished and the work is pleasurable."

Energy as expressible through the human family does not belong to one sex or the other. Wherever an individual approaches the perfection of his kind, through him or her flow

the forces that lift civilization. Fra Elbertus tells us, "We have been mired in the superstition that sex is unclean, and therefore honesty and expression in love matters have been tabooed. But the day will yet dawn when we will see that it takes two to generate thought; that there is the male man and the female man, and only where these two walk together hand in hand is there a perfect sanity and a perfect physical, moral and spiritual health."

In work, of course, there will be specialization as tastes and talents differ, but it must not be that domestic service is woman's alone, and all other work man's alone. Woman will direct her powers toward that branch whereby she may be of the best service, train for it, and thus fill her niche as a human factor.

A writer in the *North American Review* at the beginning of the new century estimates that women occupy seventeen per cent of all the occupations. In the face of the difficulties to be overcome before being able to get outside of her "sphere" this is a very good percentage. This magazine writer takes it as an indication of "the moral degeneracy of women," which shows that there are yet obstacles being thrown out to bar the way of freedom in industrial activity.

It is no more best that all women should give all their time to serving the family than that all men should hunt and fish to clothe and feed it. The very inter-relationship of society in its varying needs of the present makes diversification necessary. To do something for others while others do something for you is the best point to reach in the social relation. "Blessed is the man (or woman) who has found his work."

Moreover, as an advanced thinker says, "All work is for the worker. What becomes of the product of your work and how the world receives it matters little. But how you do it is

everything. We are what we are, on account of the thoughts we have thought and the things we have done. As a muscle grows strong only through use, so does every attribute of the mind and every quality of the soul take on new strength through exercise. And on the other hand, as a muscle not used atrophies and dies, so will the faculties of the spirit die through disuse.

"Thus we see why it is very necessary that we should exercise our highest and best. We are making character—building soul-fiber; and no rotten threads must be woven into this web of life.

"Work is for the worker. Can you afford to do slipshod, evasive, hypocritical work? Can you afford to shirk, or make-believe, or practice pretense in any act of life? No, no; for all the time you are molding yourself into a deformity and drifting away from the Divine. What the world does and says about you is really no matter, but what you think and what you do are questions as vital as fate."

Home to Unfold the Larger Life.

That place is not home which is merely a domestic laboratory—a place where are done those things relating wholly to the physical. How it shall be changed to unfold the larger life is a question exercising the mental faculties of all who wish to assist in the world's social development; and the riddle is being solved. When the newer, better structure is reared the old will be deserted, for the better becomes the necessity as soon as it is generally recognized.

The specialization of industries connected with the household has begun, as the public laundry, bakery, tailoring and dressmaking establishments and eating-houses attest. The conservative Pharisees, however, are wont to give themselves

congratulations and consider others not up to the mark who patronize anything outside of home industry for home consumption. To eat away from home bespeaks wifely "shiftlessness"—likewise the consuming of bakery goods and prepared conserves and pickles, and such. What we are used to so easily becomes what we like and must have, until some one calls attention to the advantages of different procedure.

The mental attitude into which we have been trained clings tenaciously, so that it is hard to distinguish between those things the result of such training and those which are made known to us by coming into the light. We are in darkness until we begin to think, question and investigate; and then the dawning of the light is dazzling until the iris of the mind's eye adjusts itself. But "when the judgment's weak the prejudice is strong." And with the question of simplifying the machinery of home-life the judgment is held back, because age-long tradition has photographed upon the public mind certain ideals of home hard to efface. "We have always done thus and so; therefore, it must always be," has been the logic of those who have not made the effort of thinking for themselves, or daring to differ from the established order.

To quote again from the healthy reason of our modern woman philosopher: "The economically dependent woman, spending the accumulating energies of the race in her small cage, has thrown out a tangled mass of expression as a large plant throws out roots in a small pot. She has crowded her limited habitat with unlimited things—things useful and unuseful, ornamental and unornamental; and the labor of her life is to wait upon these things and keep them clean.

"The free woman having room for full individual expression in her economic activities and in her social relation will not be forced so to pour out her soul in tidies and photograph

holders. The home will be her place of rest and not of uneasy activity; and she will learn to love simplicity at last. This will mean better sanitary conditions in the home, more beauty and less work."

William Morris' Definition of Art.

William Morris said: "We need fewer things and want them better. All your belongings should 'mean something to you.' To this end all shams must be tabooed. Make-believes have a deteriorating effect on the morals of a family. The thought of make-believe expressed in any article of furnishing is a bad object-lesson. The loud, inharmonious effects must also give way to the quiet and simple. Elaborateness of furnishings, decoration, clothing, manners, is relegated to the splendors of barbarism, where attention must be called to externals because the lack of development of the inner life makes it impossible to be manifest. In all the realms of art the subtle is undermining the blatant and aggressive. Art, by the way, 'is only the best way of doing things'; and that in life is best which is made to serve."

Simplicity in house furnishings leaves the mind more time for devising means of improvement along other lines, not the least of which is healthfulness in dress and in the selection and preparation of foodstuffs that will nourish instead of pleasing the palate.

Education has for its supposed aims culture of the individual; but there is a brand of education that is veneer, that trains the mind to like a thing well-said better than a true one, to prefer a trained manner to a sincere one, to think gracefulness of manner, aspect or dress to be more than the value of substance and heart. Whereas truth, courage, loyalty and the power of concentration must be the foundation of all that is worth while. All else is to be superstructure.

After considering home to be a place for rest, for simplification of labor, and a place of equality for all its members, last and best it is where our best selves must be warmed and nurtured into active life. It is a place where each matured person at least becomes positive against all annoying influences, and where the little ones, if such there be, are taught the duties of kindness, cheerfulness and consideration of others by example and precept. Anything which is a lesson to a child to think of and care for others, and not to place itself as the center of family interest—the principal receiver instead of one of the givers—helps to counteract the tendency to selfishness which is apt to be fostered by unremitting parental care. Activity in all the kindly offices to different members of the family and to playmates is the surest way to lead the young to the habit of doing right and thinking for others. A far better grade of happiness is thus secured the child. Consciousness should always be beyond self. Self-gratification brings the poorest of returns; it is evanescent; it brings not the blessings which doing for others will insure. The most satisfying thing in life is love and sympathy, and this is never gained as an end, but must come spontaneously, because our characteristics and habits are such as to make them ours.

"Happiness for All, from All."

Ordinarily all states of mind are contagious. If in a home ill-temper, fault-finding and the like are allowed to be cultivated through expression, one disagreeable member of the family will make the atmosphere unpleasant for all. Sensitive childhood feels it and returns it in kind. Instead the home motto should be "happiness for all, from all," and the cultivation of the better mental attitudes made a duty among adults and children. Wherever there are natural tendencies to sad-

YOUTH—J. F. Ballavoine.

ODALISQUE—N. Sichel.

ness or ill-nature they should be crowded out by the persistent expressions of gladness.

"When love, health, happiness and plenty hear
Their names repeated over day by day,
They wing their way like answering fairies near,
Then nestle down within our homes to stay."

"All that our hearts approve of wit, poetry, sentiment and sense we should endeavor to live in our daily home lives," and thus become like what the best of us approves. We should make the words used in our homes kind, conciliatory and soothing, and thus insure restfulness, happiness and peace to those who dwell therein.

It is said that the world reflects back to us what is in ourselves. Henry Wood says it this way: "That which men have in themselves they see everywhere objectively reflected. One who is disposed to cheat sees cheating in the atmosphere around him, until he mistakenly concludes that it is a part of the Established Order. But it is entirely in men, and Law knows it not."

Goodness attracts, happiness attracts, friendliness attracts. Would any have friends? Then be a friend. Would you approximate happiness in the home? Open the doors to the influences of human weal; express thoughts of helpfulness. The poet Edgerton has set forth the following thoughts:

"Tell Him So."

"If you have a word of cheer
That may light the pathway drear
Of a brother pilgrim here,
Let him know.
Show him you appreciate

What he does, and do not wait
Till the heavy hand of fate
Lays him low.
If your heart contains a thought
That would brighter make his lot,
Then, I beg you, hide it not;
Tell him so.

"Life is hard enough at best,
But the love that is expressed
Makes it seem a pathway blest
To our feet;
And the troubles that we share
Seem the easier to bear.
Smile upon your neighbor's care
As you greet.
Rough and stony are our ways,
Dark and dreary are our days,
But another's love and praise
Makes them sweet.

"Wait not till your friend is dead
Ere your compliments are said,
For the spirit that has fled,
If it know,
Does not need to speed it on
Our poor praise; where it has gone
Love's eternal, golden dawn
Is aglow.
But unto our brother here
That poor praise is very dear.
If you've any word of cheer,
Tell him so."

Homes are splendid factors in social advancement through the power to radiate good to all who may be brought in contact with their influences of geniality. Through outside friendship the beneficence of one good home may be spread to many hearts.

It is an ideal of such homes we should ever strive to actualize; homes in which there is a living, throbbing desire to attain to all in the soul realm that is best, whatever be our material environment. No ideal was ever so high we are not made better by striving toward it; *provided,* it is in harmony with the thought of the unity of human kind.

PART I.

CHAPTER IX.

Mature Life.

THE desire for long life, health and plenty has existed from time immemorial; with each succeeding generation it is re-asserted, and the dawn of the twentieth century finds the quest of youth as earnest as ever. Only the truth of an idea endows it with living power. And if this desire were not for the weal of humankind it would long ago have been left behind.

The magical fountain of youth has been found to exist within ourselves. To the successful searchers it does not mean that the change called death shall never come, though the possibility of overcoming death itself is recognized by some. The fountain of youth is fed from the perpetual spring of love; the more that is given, the fresher and purer and more plentiful remains the fountain's supply. "All the currents of nature are love energies," says Burry. "From the basis of love alone must man attempt his interpretation of life.

"The man who not only feels the love elements surging through him, but who has commenced to harness these forces, recognizing them as the creative principles of nature, has become a great magnetic center."

The perfect love which "casteth out fear" is the rock that must be the foundation for actual growth: to cease growing is to cease living. Mankind has permitted and encouraged it-

self in anticipating the infirmities of old age, and by degrees dropping into mental and physical inactivity.

"Man has always considered life synonymous with sorrow and suffering. He has always had an instinctive longing for happiness and an indefinite belief that it was possible to attain his desire, but the unhappiness of thwarted hopes and blasted ambitions has followed in the wake of his *ignorant efforts.* In youth and middle age he looks forward to the consummation of his wishes with an eagerness and zest that he afterwards remembers with a cynical smile. He has grown pessimistic and lost interest in former pursuits, and has settled to a grudging endurance of the remaining years he considers allotted to him."

When the desire for health, plenty and long life is not realized among externals, some of the race set themselves to arguing that unalloyed happiness does not exist, and thereby align themselves with the negative forces of destruction. And so unhappiness, disease and death (so-called) become realities.

In order that the waters from the fountain of youth may not be clogged and made stagnant, humankind must be free. Or, as has been repeatedly stated, live your own life regardless of what may be other people's creeds or beliefs. A writer in the *Nautilus* says: "Realize that what other people do or think, or do not do or think, has nothing to do with what you are or will be. Furthermore, the acts and words and thoughts of others are none of your business. They have a right to treat you in any way you *let* them treat you, and think of you anything they choose. You attract exactly what you get, and you *need* it all to wake up to *yourself.*

"Let them alone to think out their own salvation, and set yourself to make something of your own life and thought-force. You have been frittering away your thought energy

upon these people. That is why you have that tired feeling and cannot concentrate."

If things go wrong the fault will never be found outside one's self, although human pride will have it so. All obstacles that are to be overcome are for the purposes of development. Where there is nothing to be overcome, strength is not made manifest. It is only when we come to regard each experience as a needful lesson that the real meaning of life will be understood. We are the creatures of circumstances only so long as we bow before them: when we have a realizing sense of our own power, then may we dominate circumstances.

Youth in Old Age.

For the preservation of the spirit of youthfulness it is necessary to be one with the present. Even if one believes he has a new grasp on truth and wishes to give of what he has to society, he cannot isolate himself and go to the mountain top beyond and above his fellow-creatures. In the generations gone only those people retained youthfulness against advancing years who were the comrades of their children. Others who were merely trainers grew old in mind as well as body and died, and people said their time had come, while those who are young, though beyond the fourscore, are illy spared.

Youth is the training-time of mind and body. Mr. Gladstone said: "To train the mind should be the first object, and to stock it the next." School life is only preparatory to the serious work of maturer years. There is no age limit wherein the aggressive mind will cease to appropriate that which it can assimilate for growth.

As the reason and judgment mature, fewer mistakes will be made and less ground retraced. We learn to do by doing. While youth is attracted by what pleases the senses, the mature recognize only that beauty which is useful—that in life which is genuine.

It has been said that as a rule people do not change much after they are forty; that experience thereafter is only a deepening of ruts and not added power for progress. When this is true freedom to think has not been reached; people are going by the rule of precedent and are not exploring the realm of truth for themselves.

There are numerous examples to prove that the best life work has been done after fifty years. The resources of mature life are so many more than those of childhood no one who is free will ever regret the vanished days.

The following examples of work after fifty are from an article in the *Coming Age:*

Socrates was an old man when he began the study of music, and he gave to the world his wisest sayings when he was sixty-eight.

Plato, who said an old man could not learn any more than he could run, was prosecuting his philosophic studies as a pupil until he was forty years of age, and did not begin to teach philosophy until he was about fifty, and he retained the vigor of all his faculties to the ripe age of eighty-two, and handed down to posterity all of his grandest sayings after the age of fifty.

Aristotle continued a pupil until he was thirty-seven, and he was fifty-three before he established his school of philosophy at Athens. It was probably after this that he wrote his works which governed the logical thought of the world for so many ages.

Bacon was sixty before he arrived at the full maturity of his genius. It was then he gave to the world his "Novum Organum," which has reconstructed science and has given an entirely new method of scientific investigation.

Hobbes was sixty-two when he published his treatise on

"Human Nature," and sixty-three before he completed his "Leviathan."

Copernicus was nearly fifty before the theory of planetary motions which now prevails suggested itself to his mind. Nor did he succeed in establishing its truth to his own satisfaction until he was seventy, when he gave it to the world.

Coke did not make his first attempt as an author on law until he was fifty years old. His great works were produced between that age and the time of his death at eighty.

Mr. Benjamin, Q. C., who went from America to wrest the chief prizes from English lawyers, was almost sixty when he was called to the English bar, and within five years he was making three times a judge's income.

John G. Abbott wrote "History of the American Civil War" at sixty-one, and "Romance of Spanish History" at sixty-five.

Agassiz was fifty-nine years of age when he made an exploration in Brazil with his wife and scientific assistants; and the steamer Colorado was made ever memorable by the course of lectures which this most popular of scientific lecturers gave on board.

Jean le Rond d'Alembert ranks as one of the greatest benefactors to science of the last century. He was fifty when he wrote the preliminary discourse to the celebrated "Encyclopedia" which he had assisted Diderot to compile, and which drew from Condorcet the compliment that in a century only two or three men appeared capable of such writing. He was fifty-five when he was elected secretary to the French Academy and wrote the biography of seventy of its members.

Stephen Alexander, American astronomer, was fifty-four when he made his expedition to Labrador to make observations on solar eclipses, and sixty-three when he went west for the same purpose.

Voltaire, French poet, historian and philosopher, and the most celebrated writer of the last century, did his greatest work after fifty, and at eighty-four produced his tragedy "Irene" in Paris, where he was everywhere attended by crowds, occupied a director's seat at the Academy, and was crowned at the theater.

John J. Audubon, distinguished American ornithologist, was fifty years of age when his first famous volume of "The Birds of America" in folio, one hundred colored plates, drawings and colorings, made by himself, appeared in London. He was fifty-nine when the fourth volume completed the splendid work, which contains in all one thousand and sixty-five figures. He wrote "Quadrupeds of America" when near seventy years of age.

Pierre Augustin, Baron de Beaumarchais, politician, artist, dramatist and merchant, was forty-six when he wrote "Le Barbier de Seville," and fifty-two when he wrote his famous "Le Mariage de Figaro."

Jean Pierre de Beranger, one of the greatest lyric poets that France has produced, was between fifty and sixty when he completed his fourth series of songs. Speaking of these masterpieces of poetic skill, Goethe says: "His songs have shed tears of joy into millions of hearts."

Baron John Jacob Berzelius, one of the greatest chemists of modern times, at sixty-nine filled the chair of chemistry at Stockholm (Sweden) University. From fifty to sixty-nine, by his patient labors and ingenious investigations, he did more to lay the foundations of organic chemistry than any other chemist.

Bismarck was fifty-one when he carried out his long-cherished project of making Prussia the real head of Germany. He was sixty-seven when he accepted the challenge so rashly

offered by Napoleon III. and engaged the whole of Germany in successful war against France.

Karl Wilhelm Boettinger, Professor of Literature and History in the University of Erlangen, wrote the "History of Germany and the Germans" at fifty-five, and the "Universal History" at fifty-nine. He wrote all of his most important historical works after fifty-five.

Matthew Boulton, celebrated English engineer and member of the principal learned societies of Europe, whose long life was constantly and almost uninterruptedly devoted to the advancement of the useful arts and the promotion of the commercial interests of his country, did his best and most useful work from sixty-five to eighty-one.

Sir John Bowring, distinguished English diplomatist and author, did much of his famous work after sixty-seven years of age.

Lord Brougham, eminent English advocate, jurist, philosopher and statesman, gave to the world his best work from fifty to eighty-nine.

John Henry Kirk Brown, American sculptor, was fifty-seven when he began his equestrian statue of General Scott, which is considered his best work, and his "Resurrection" when sixty-three.

Joseph Rodes Buchanan wrote "Anthropology" at sixty-eight; "The New Education" at sixty-nine; "Science of Destiny" at eighty-three; working with undimmed intellect till his death.

Phillips Brooks was fifty-two when he delivered his two great lectures on "Tolerance," in New York, and continued his great work in the intellectual world to the end of his life at fifty-eight.

William Cullen Bryant wrote many of his most beautiful

poems after fifty, and translated the "Iliad" and the "Odyssey" at seventy-six.

George Loring Brown was sixty-two when he painted "Niagara by Moonlight," and sixty-six when he painted the "Doge's Palace at Sunrise."

Sir Astley Cooper, F. R. S., celebrated English surgeon and anatomist, wrote "Anatomy and Diseases of the Breast" when sixty-one, and his work on "Dislocations and Fractures" at sixty-four.

Disraeli was appointed Chancellor of the Exchequer when fifty-four years of age. When sixty-one he became financial minister under the Earl of Derby for the third time. He became minister of the crown when sixty-three; and wrote "Lothair" when sixty-five.

Du Maurier was sixty when he wrote "Trilby."

Emerson published "English Traits" when fifty-three, and the "Conduct of Life" when fifty-nine.

Faraday, the distinguished English natural philosopher and chemist, when fifty-five years of age received the Royal and Rumford medals for his discovery of diamagnetism and the influence of magnetism upon light. When fifty-six he discovered the magnetic character of oxygen, and also the magnetic relations of flame and gases.

Froude wrote the "History of England from the Fall of Wolsey" when fifty-two years of age.

Gladstone translated Farini's "Stato Romano" when fifty; at sixty wrote "The Gods and Men of the Heroic Age," and continued active in mind and body until his death at eighty-two.

Glück, the German musical composer, presented his masterpieces after fifty years of age, and his greatest performances were executed after he was sixty.

Goethe, the greatest modern poet of Germany, wrote the first part of "Faust" when fifty-six years of age, the second part appearing when he was eighty-two. "Wilhelm Meister" appeared when he was sixty-nine.

Samuel Hahnemann, founder of homeopathy, published "Medicine of Experience" when fifty, and the "Organon of Rational Medicine" when fifty-five.

Handel's "Messiah" was not completed until his fifty-seventh year; at his death, at the age of seventy-four, he was in full possession of his musical powers.

Oliver Wendell Holmes did much of his best work after passing the half century mark.

Victor Hugo wrote "Les Miserables" when sixty years of age.

Humboldt, at sixty, explored the eastern province of Russia, the results of which trip were published by him at the age of seventy-four, entitled "Central Asia,—Research on its Mountain Chains and Climatology." He published "Kosmos" and other works between the ages of seventy-six and eighty-two.

Michael Angelo was fifty-eight when he began to paint the "Last Judgment," which occupied eight years. After the age of seventy he mastered the science of architecture.

Milton completed "Paradise Lost" when fifty-seven, and "Paradise Regained" at sixty-three.

Sir Isaac Newton, philosopher, mathematician and astronomer, was sixty-two when his treatise on optics was published.

Sir Joshua Reynolds was sixty-one when he painted the beautiful allegorical portrait of "Mrs. Siddons as the Tragic Muse."

Benjamin West was fifty-four when he succeeded Sir Joshua Reynolds as President of the Royal Academy, and was in his sixty-fifth year when he painted his celebrated picture of "Christ Healing the Sick."

Titian painted his "St. Peter, Martyr," when he was fifty-one, and worked on almost to the close of his remarkable life at ninety-nine.

Jules Verne was writing romances when past seventy.

Noah Webster performed the herculean task of his life between the ages of sixty and seventy, rearing a monument to his own ability, industry and learning.

Camille Flammarion, the eminent French astronomer, has done much of his most valuable work since his fiftieth birthday.

Examples might be multiplied over and over again to prove that maturity may bring life's best expression. The present being made up of what has gone before, any of the earlier years cannot be given over to habits that destroy without the record being left. Unless the quality of a life is good, the greater or less length does not signify so much in the social fabric. Whatever of good is in the character of people, themselves receive the first benefit. Each has his own life to live; but in order to be a vitalizing element the power within one's self for the expression of the universal life must be recognized. William Penn said: "He that does good for good's sake, seeks neither praise nor reward, is sure of both at last."

The Fountain of Youth.

And as to the fountain of youth, which also is the source of strength and power to do, one writer says: "The fountain, which began flowing when God said, 'Let there be light,' is still flowing—has ever been flowing and will always flow. Indeed, the signs are not lacking that it is flowing more freely than ever before. The increase of flow results from the fact that more of us are willing to drink. In vital matters supply is always infinite; but apportionments are always in ratio with

demand. Our banker never forces money on us; we have to check against our deposits."

So, in order to receive of our share from the infinite supply of all the phases of good we must persistently make demand. In the words of Prentice Mulford: "Mind is magnetic because it attracts to itself whatever thought it fixes itself upon, or whatever it opens itself to. Allow yourself to fear, and you fear more and more. Cease to resist the tendency to fear, make no effort to forget fear, and you open the door and invite fear in; you then demand fear. Set your mind on the thought of courage, see yourself in mind or imagination as courageous, and you will become courageous. You demand courage.

"Ask and Ye Shall Receive."

"There is no limit in unseen nature to the supply of these spiritual frailties. In the words 'Ask and ye shall receive,' the Christ implied that any mind could through demanding draw to itself all that it needed of any quality. Demand wisely and we draw to us the best.

"Every second of wise demand brings an increase of power. Such increase is never lost to us. This is an effort for lasting gain that we can use at any time. What all of us want is more power to work results and build up our fortunes—power to make things about us more comfortable to ourselves and our friends. We cannot feed others if we have no power to keep starvation from ourselves. Power to do this is a different thing from the power to hold in memory other people's opinions. * * *

"Your plan, purpose or design, whether relating to a business or an invention, is the real construction of unseen thought-element. Such thought-structure is also a magnet. It commences to draw aiding forces to it as soon as made. Persist

in holding to your plan or purpose, and these forces come nearer, become stronger and stronger, and will bring more and more favorable results.

"Abandon your purpose, and you stop further approach of these forces, and destroy also such amount of unseen attracting power as you may have built up. Success in any business depends on the application of this law."

This being a law-governed universe, everything successful is in accordance with law: everything non-successful when the law is not conformed to. Each must develop his own powers of understanding, and when he does so will give some individual interpretation of life. "Law is diversity in unity, and man in expressing it is the same."

A writer in *Unity* gives the following words of helpfulness for gaining what is our own for the claiming: "Our recognition of the vitality of all things about us gives vitality to all our environment as well as to the physical condition of the individual. It gives poise to the individual, a feeling of strength and confidence in his ability to think and to do; his fears leave him one by one, for they cannot stand in the face of this great vitality. All good is for him. He has only to reach out and take what he wants. He must trust his real desire for perfection and harmony within and without, must make for it, passing by all contradictions to this truth that would beset his path and at times seem to obstruct it wholly.

"Don't listen to any negative voice. Truth is not in negations. Truth is in the positives that make for and proclaim health, opulence, all good and nothing else. In a strong positive attitude there is no room for negations; only as the strong attitude is abandoned do the negatives edge their way in."

A lesson that cannot be learned too early nor too late is that of making one's own life the very best possible according to the

knowledge possessed. When each is strong within there will be no need of outside protective measures against temptations. Virtue does not exist because of no chance to manifest in vice.

Always Look Forward.

There is also this: no beautiful minute should ever be spent in regret. If mistakes have been made, they may be utilized as stepping-stones to better experiences. Always look forward to the splendid possibilities of the future, working patiently with the material at hand, until better appears. Because one has reached the age of forty or fifty or more, is no excuse for ceasing to be active in all ways. It is not for nothing we are here; nothing is causeless or purposeless. Would you approach happiness, follow Nature's example of activity; thereby working with her beneficent laws. "When one generation comes into possession of the material good that the former generation has gained and makes that fool remark, 'I don't have to work,' it straightway is stepping on the chute that gives it a slide to Avernus." Success in any line is to the active, who concentrate their thought-force to a given end. Success is a desirable end through desire to serve, and when one fails to attain to it the fault can only be measured and understood through the knowledge of personal responsibility.

Brother Hubbard, of *The Philistine,* tells us—and he is one of the prophets of Truth: "Man never plots another's undoing except upon the stage. Because you do not like a man is no reason he is your enemy—this is a busy world and no one really has time to sit right down and hate you. The only enemies we have are those we conjure forth from our inner consciousness."

ASPASIA—N. Sichel.

MEDITATION– L. Perrault.

PART II

TOKOLOGY

THE PHYSIOLOGY AND HYGIENE OF THE SEXUAL ORGANIZATION.

"Man and woman created He them. Male and female created He them."

PART II.

CHAPTER I.

The Organs of Generation.

"Male and female created He them."

WHILE the principle of sex is inherent in every member of the human organism, the physiological formations of the male and female sexual systems are unlike. They are complementary to each other, together making creative powers complete.

The man and woman who most nearly approximate this complete relationship to each other are, with a fair degree of understanding of the use and abuse of the sexual nature, best fitted to overcome all the obstacles of life. But to attain to the highest possibilities that culture of mind which enables one to perceive the fineness of Mother Nature's laws is needful. Obedience is the price for her blessings.

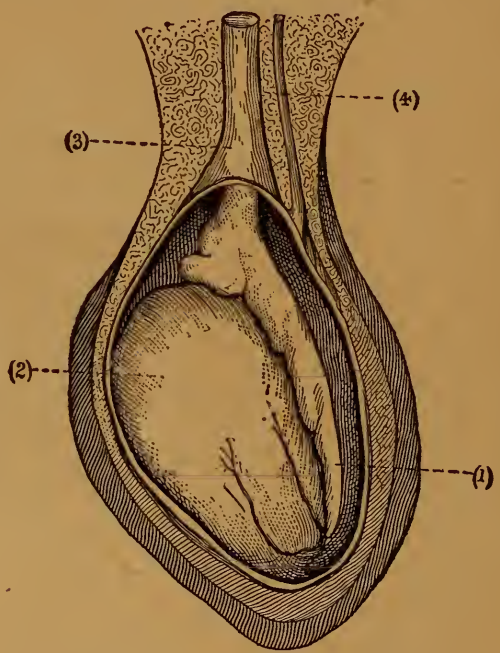
To lead to a more complete understanding of the subject which is the basis of this work a detailed description of the structure of the organs of generation is given.

The Male Organs.

The male organs are the *testes* and *penis,* together with nerves, blood vessels, glands and vesicles. The female organs are the *ovaries* and *uterus,* with supporting ligaments, etc. The most important of these are the "seed-bearing" organs; in them is the origin, or source, of life's powers. The brain

plans the sex system, furnishes the essences which quicken or make fruitful whatever is planned. It gives one the power to reach others of his fellow-creatures.

The *testes* are two in number, resembling a small hen's egg in size and shape; they are suspended within a cutaneous pouch called the *scrotum.* In pre-natal growth the testes are formed in the abdomen, behind the lining membrane and below the kidneys; they descend prior to birth (from the fifth to

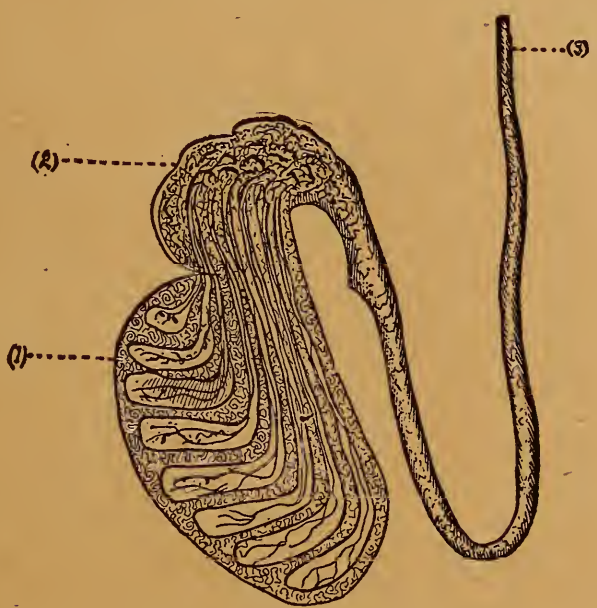


THE MALE SEXUAL ORGANS. (*a*)

The Testis (testicle)—scrotum partially cut away. (1) Cut edge of the scrotum. (2) Body of testicle. (3) Spermatic cord. (4) Spermatic artery.

eighth month), bringing with them the numerous coverings derived from the serous, muscular and fibrous layers of the abdominal walls. In rare instances they never descend; yet the person has virile powers. There are seven external coverings, not necessary here to be described, and each testis has two other coats. Nature has tried to protect man thoroughly. Himself is his own worst enemy in this regard.

The scrotum is divided in two lateral halves, allowing a separate chamber for each testis. A small raised line beginning at the root of the penis and continuing along the middle line of the perineum describes this division on the surface. A spermatic cord passes from each testis upward into the pelvis to the point below the kidneys where they were formed. Each cord is made up of a muscle, an artery, veins, nerves and lymphatics. The artery is about the size of a crow's quill, and



THE MALE SEXUAL ORGANS. (*b*)

The Testis (testicle).—Sectional diagram. (1) Network of seminal tubes within the testis. (2) Union of seminal tubes. (3) Duct leading to seminal sacs.

is a branch of the aorta. Through it the best blood of the system is sent to the glands of the testicle to be refined and there reabsorbed for the perfection of the masculine nature.

In a mature man each testis is about an inch and a half in length, an inch wide and about a half-inch thick. One of Nature's miracles is to coil within so small a space almost a mile of seminal tubing. As in all glandular structures, the

testes are composed of a countless number of cells, a network of tubing and a duct to convey away the secretion. They are built on the lobular plan, like the liver, the cells, vessels and ducts being gathered into small bundles called *lobules*. Each lobule is covered with a plexus of blood-vessels, a white fibrous coating and a serous membrane; and there are about four hundred of such lobules in each testis. The seminal tubing is about one one-hundred-and-seventieth (1-170) part of an inch in diameter.

Different portions of this tubing receive different appellations. Before leaving the lobule it becomes straight, and is called *vasa recta* (straight vessel); from the lobules they join and form a network, and the name becomes *reti testis* (testicle net); here the tubing leaves the testis and forms into from twelve to twenty ducts, which are called *vasa efferentia* (bearing-away vessels). The word *epididymis* is derived from the Greek word *didymis,* meaning testicle; epididymis signifying "upon the testicle." This is at the back of the testicle, or testis, next the trunk, and is a continuation of the tubes. It is a convoluted mass some twenty feet in length, which at the lower end of the testicle becomes narrow and makes an upward turn, and is called *vas aberrans* (deviating vessel), to distinguish from the straight line it next assumes. *Vas deferens* (vessel bearing from) is the last name given the tubing; it is through this portion the fluid leaves the scrotum. The *vas deferens* forms part of the spermatic cord until it enters the abdomen; it then passes over the bladder and back of it to connect with the seminal vesicle. The *seminal vesicles* are reservoirs for the semen, as the gall-bladder is for bile. They are two lobulated membranous pouches at the base of the bladder, between it and the rectum. Each vesicle is a single tube coiled upon itself and held in place by fibrous tissue. When

uncoiled it is about the diameter of a quill and from four to six inches in length. At the upper, or posterior, end the vesicle has no opening; at the lower it forms a duct which unites with the *vas deferens,* and together they form the ejaculatory duct. At the climax of amative excitement the contents of the seminal vesicles are propelled outward through the ejaculatory duct and urethra.

The *penis* is composed of three compartments of spongy tissue, two lying side by side and one below. The two compartments are named the *corpora cavernosa* (cavernous bodies), and the other *corpus spongiosum* (spongy body). The spongy portion contains the urethra, a canal through which the bladder is emptied, and which conveys the seminal fluid outward. The *erectile tissue* of which the body of the penis is composed resembles the structure of a sponge, the apertures of which are lined with an intricate network of very small veins and arteries, with nerves and lymphatics. In just the way a sponge may be enlarged to several times its original size by filling with water, the erectile tissues are increased by an influx of blood called to those parts under excitement of the nerves. This excitement is induced by the mind dwelling on amative matters, and often almost no immediate cause is needed to produce erection. The brain is the controlling power of all the functions of the body, but especially so of every conscious act. And over no place in the mechanism of the body should a more rigid censorship be exercised than over the sexual system. A waste of force in this department debilitates more quickly than in any other.

The *corpus spongiosum* extends beyond the two cavernous bodies and forms the *glans penis* which covers the ends of the *corpora cavernosa.* The whole body of the organ is enveloped in a loose covering, continuous with that of the pubes,

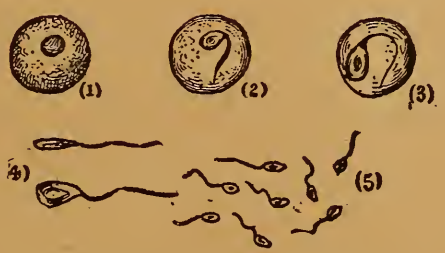
which at the crown becomes folded upon itself, forming the *prepuce,* or foreskin. In childhood the prepuce completely envelops the glans, but in the adult may be drawn back of the glans. Where the habit of cleanliness has not been established in boys and men, the sensitive glans penis may become excoriated by its own secretions. Little glands about the neck secrete an oily fluid for preserving the glans and the prepuce which covers it. Before puberty there is not so much activity in secreting as after, so that special care in cleansing is not needed until after that time. When neglected a chemical change is undergone, which renders the natural lubricant of a disagreeable odor, and of cheese-like consistency, with sometimes acrimony which produces inflammation.

The habit of cleansing the genitals daily with soap and water, allowing the head of the glans to receive attention, will be a savior in more ways than one. This unclean condition often gives rise to an irritation which causes amative desire in its lascivious sense. A bath will remove the cause and place one on better terms with his conscience and self-respect.

Glands accessory to the formation of the seminal fluid are the *prostate gland* and *Cowper's glands.* The first surrounds the neck of the bladder and resembles a horse-chestnut in size and shape. Through the prostate gland passes the urethra; the ejaculatory ducts open into the prostatic portion of the urethra. The gland itself has fifteen or twenty excretory ducts, which also open into that portion of the urethra. The secretion from the prostate gland lubricates the interior of the urethra, and also serves to assist the seminal fluid to escape when excitement demands.

Cowper's glands are two small bodies about the size of peas, located below the second portion of the urethra, and each has a duct opening into it. The semen itself, which requires

such a delicate and complex mechanism for its manufacture, is described as a thick, whitish fluid, which contains the *spermatozoa* essential for the propagation of the species. There are hundreds of sperm-cells in a single drop of semen, and only one is necessary to produce another life when united with the ovum of the female organism. The spermatozoa is about 1-600 of an inch in diameter and resembles the tadpole in shape.



SPERMATOZOA (*greatly enlarged*).

(1, 2, 3) Various stages of development of the sperm cells within their sacs. (4, 5) Various views of the free cells.

A man will seldom wish to perpetuate himself in more than from one to six children; hence a larger use for his powers of virility lies in revivifying and strengthening his force in other directions.

Conservation of Forces.

One writer expresses the subject in the following wholesome language:

"A man who conserves all his forces and allows no prodigal waste of seminal secretions during the age of virility receives a sure reward. His frame becomes more closely knit, his step more sturdy and elastic, his voice rich, harmonious and magnetic, his mind clearer, his judgment more reliable. He can endure a greater strain of business or study as he goes on in years, and in every way is the reliable man.

"This may in a large measure be attributed to the absorp-

tion and assimilation of the conserved sperm. A large quantity may be taken up by the brain and expended in thought. No uneasiness need be felt if, after strenuous mental exertion, there should be a temporary arrest of the secretion. Excessive manual labor also, under some circumstances, arrests the secretion, and both body and brain may be affected thereby. The better life is that which is equally apportioned between mental and physical labor. With these there should be rest, leisure, recreation and social enjoyment interspersed to bring the best results.

"The depressing effect upon the system of tobacco, alcohol, opium and chloral prevents the secretion and assimilation of sperm, robbing both mind and body."

It may be that the widespread tobacco and alcohol habits among men are the chief sources of sexual abnormalities. These have their origin in minds undisciplined to self-control.

The Female Generative Organs.

The female generative system is the seat of much disease and suffering, which might be avoided did one understand the structure of the sexual organs and the laws governing the same.

For a full description of the system, to the principal organs, the ovaries and uterus, must be added the mons Veneris, the labia, the clitoris, the vagina, and the Fallopian tubes.

The *mons Veneris,* or mount of Venus, is the eminence surmounting the external organs, and at puberty becomes covered with hair.

The *labia,* or lips, are folds of skin which enclose the vaginal opening.

The *clitoris* is a small erectile organ at the upper part of the vulva, between the external labia, corresponding in relative position to the male penis. It is highly sensitive, especially so in abnormal sexual appetite.

The *vagina* is a canal leading from the vulva to the uterus; its average length is about five inches, and it surrounds the lower part of the neck of the womb. On either side of the vagina, near the opening, are two glands (the glands of Bartholine), which correspond to Cowper's glands in the male, whose excretory ducts open upon the side of the internal labia. The vagina has a muscular coat, a layer of erectile tissue, and an internal mucous lining. This canal is the complement of the penis in the procreative act. In health it helps sustain the weight of the uterus, and serves as a passage for the menstrual discharge.

In early life the vagina is usually more or less closed by a membranous fold called the *hymen.* It is sometimes circular, with an opening in the center; again it is stretched across the lower part of the opening only. In rare instances the original opening is entirely closed, constituting an imperforate

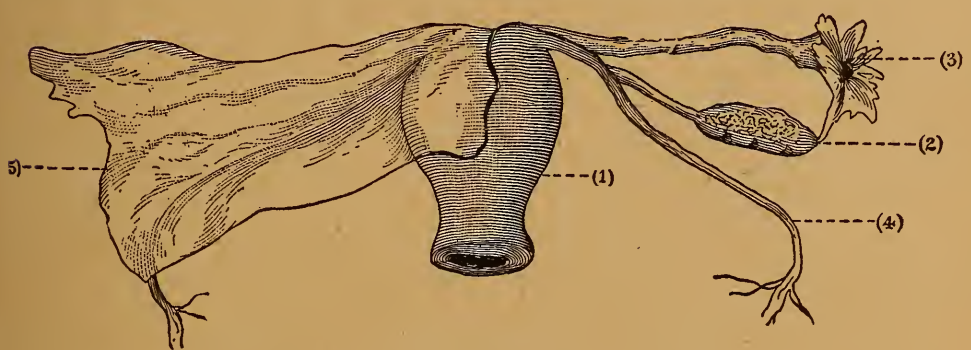


DIAGRAM OF THE FEMALE SEXUAL ORGANS.

(1) The uterus. (2) An ovary. (3) A Fallopian tube. (4) Round ligament. (5) Broad ligament which, on the opposite side, has been cut away to show the parts it supports.

hymen. In such cases, before the function of menstruation can be established, the membrane must be ruptured. It is often entirely absent. Formerly its presence was supposed to indicate virginity in a woman, but there is abundant evidence to indicate that it bears very scanty relation to that estate.

The *Fallopian tubes* are oviducts, ducts to convey the ovum from the ovaries to the uterus. They are described as trumpet-shaped, the larger end terminating in fringe, or fimbræ. During amative excitement these fimbræ are supposed to envelop the ovaries, and seize any matured egg at the surface of these bodies and convey it to the uterus for possible impregnation.

This is the process of Nature to be considered in the control of the procreative function in connection with avoiding ejaculation by the husband. People who believe in the quickening powers of sexual union for love alone unite for a certain length of time in the marital embrace. But excitement is avoided, thus preventing escape of the seminal fluid, and of the ovum also. Each gives to and receives from the other the magnetic element needful to the complete upbuilding of their individual powers. Any married pair should be willing to control themselves for the sake of sparing themselves babies upon whom they cannot bestow proper qualifications. Besides, *it is the better way,* once it is learned.

The *uterus* is the organ of gestation, in size and shape resembling a pear. The upper and broader portion is called the *fundus,* and the lower contracted portion the *cervix.* The cervix, or neck, projects partly into the vagina and forms the *os,* or mouth of the uterus, the external opening of the cavity. The Fallopian tubes lead from either side of the top of the broad portion, their opening being no larger than the diameter of a horse-hair or hog's bristle.

The uterus is mostly composed of a muscular coat, very thick in the unimpregnated state. Its arteries and veins are remarkable for their tortuous course. Both the muscular thickness and tortuous veins and arteries are provisions for the changes in size during pregnancy. In health this muscu-

lar coat is said to be of two hundred horse-power resistance, amply able to expel an infant at parturition without pain.

The provisions for sustaining the uterus in natural position are plentiful, there being eight ligaments to serve as supports; the *round,* the *broad,* the *anterior* and the *posterior.* The two round ligaments extend from the body of the uterus near the opening of the oviducts, through the inguineal canal attaching to the pubic arch. The other three pairs of ligaments are folds of the peritoneum or lining membrane of the abdominal cavity. The round ligaments are known as *true* ligaments.

The two broad ligaments cover, or clothe, the body of the womb as the mesentery does the bowel, and, extending outward, inclose separately the round ligaments, the ovaries and Fallopian tubes. They attach to the pelvic walls and form a wall across the pelvis between the bladder and rectum. The broad ligaments form the external coat of the uterus. The fringed extremities of the oviducts are left free.

The anterior pair of ligaments connect with the bladder; the posterior pair with the rectum.

The numerous displacements of the uterus are due to weakening of some or all of these ligaments. The most common are retroversion, anteversion and prolapsus; or when the uterus leans against the rectum, sometimes descending between it and the vagina; or leans against the bladder; or drops low into the vagina from a general weakening of all the ligaments.

The ovaries are situated on either side of the uterus, and attach to it by a true ligament, and to the Fallopian tubes by a short cord. They bear the same relationship to the economy of the female system that the testes do to the male. When ovaries lose their vitality the bodily and mental powers

wane. The surgery which removes the ovaries, or testicles, effectually destroys the ability to accomplish more than a machine. It arrests development. Venereal excess has a worse effect, in that it brings pain and suffering in addition to loss of power.

The *ovaries* are a little smaller than the testes; they are of a whitish color, oval shape, a little flattened; the weight of each is from sixty to one hundred grains. The covering of the ovary is a dense, firm, fibrous coat which encloses a soft fibrous tissue abundantly supplied with blood vessels; the soft

THE OVUM.

A Diagram of the Human Ovum (greatly enlarged).

(*a*) The Graafian vessel enclosing the ovum. (*b*) The free ovum escaping and ready for impregnation.

tissue is called the *stroma.* Imbedded in the *stroma,* and composing the main substance of the ovary, are numerous small, round, transparent vessels, called the *Graafian vesicles,* in various stages of development. These Graafian vesicles are the ovisacs which contain the ova, or female life-germ. Those most nearly matured are at the surface of the ovary, like a plant ready to burst through the ground. The maturing of an ovum and the rupture of a Graafian vesicle at the surface leave a scar upon the body of that organ. Under the proper excitement the fimbræ of the Fallopian tubes envelop

the ovary and convey the ova on its way to the uterus. The exact place of impregnation is not decided. There have been ovarian pregnancies and pregnancies in the abdominal cavity which might be taken as indications that impregnation took place in the ovary; in one case remaining to develop, in the other escaping from the oviduct and developing in the abdominal cavity; or in true development being carried to the uterus. Normally it is customary to believe that conception takes place in the uterus itself.

Precautions as to cleanliness should be given the genitals. A daily cleansing with a good syringe will preserve health in a remarkable degree. It is sometimes recommended to avoid both the daily bath and irrigation of the vagina during menstruation, but this is unnecessary; *provided* the temperature of the room in which the bath is taken is seventy degrees or higher. Chill is what is to be avoided.

The *mammæ*, mammary glands, or breasts, are accessory to the generative system. During pregnancy and after delivery they are aroused to activity, and secrete the milk which is the babe's first nourishment after birth. The mammary gland consists of numerous lobes and lobules, connected by areolar tissue with blood-vessels and ducts. About twenty ducts convey the milk from the lobules toward the center of the breast, where dilations are formed which serve as milk reservoirs. At the base of the nipple they are again contracted and pursue a straight course to its summit, where there are several small openings.

The form and size of the breasts are determined by the surrounding fatty tissue at the surface of the gland. They enlarge at puberty and during pregnancy, but more especially after delivery. In old age they become more or less atrophied.

PART II.

CHAPTER II.

Menstruation.

MNES vivum ex ova. (Every living thing comes from an egg or germ.)

Every organism throughout nature is endowed with means for perpetuating its kind. The human family depends upon a union of male and female of its kind for perpetuation, and each sex is furnished a delicate sexual system for the purpose.

When the system attains the growth for the unfolding of sex powers it is known as the dawn of puberty. In girls the approach is marked by enlargement of the bust and hips and the appearance of a sanguineous discharge known as *menstruation,* the *menses,* the *catamenial flow,* and various other appellations. This indicates that the process of *ovulation,* or the formation of ova or female germs, and the discharge of the same, has begun in the ovaries.

An eminent authority says that ovulation continues during the life of the ovary, although menstruation only attends the period of reproductive power.

At the approach of the menses it may often be noticed that girls will manifest many mental peculiarities. The physiologic base of menstruation rests in the nervous system; hence the establishment of the function, in probably the majority of

cases, affects the nerves and is reflected in the mind. The appetite may be irregular, or there may be a craving for indigestibles; languor is felt, the back aches, there are pains in the legs; chilliness, headache and many other morbid conditions are to be seen, while the temper may be very irritable or perverse.

With the establishment of a periodical flow unpleasant symptoms vanish, and the young woman enters buoyantly upon the current of adolescent life. The quickening influence of the power of sex manifests itself in increased activities, mental and physical, and in refining the whole nature. This latter is only true when the young woman has been shielded from grossness regarding sex life, or has been made acquainted with its true uses. As yet the latter is the exception rather than the rule; mothers largely rely on keeping their darlings in ignorance. But the spirit of progress is abroad, and all who desire to keep abreast of the times inform themselves more or less as to child-culture, which includes instruction on the physiological well-being of the child.

Before the menstrual flow appears a wise mother will tell her daughter that it is to be expected. Oftentimes it is learned from classmates or from ignorant older persons, and from that girls come to believe it is something to be concealed. Not knowing its nature and use, chill is often caused by dabblings in water, and repression of the flow results, which paves the way to a future of invalidism; or, coming upon her unawares, fright may affect the budding woman in the same way, doing her injury.

The age of puberty varies according to climate, race, temperament or general condition of health.

In the hot zones menstruation occurs from the tenth to the fourteenth year; in temperate zones from the thirteenth to the

sixteenth; in colder zones from the fifteenth to the twentieth year. The Italian, Hebrew, Creole or Negro girl menstruates earlier than the English, German or Swedish girl; the full-blooded girl earlier than her anæmic cousin.

In normal health menstruation occurs once in twenty-eight days throughout the years of fecundity. There are some variations to this rule; some women in sound health have menstruated once in twenty-one days; others once in twenty-four days. One physician says, "Each woman is a law unto herself" in this respect.

The source of the menstrual discharge is in the uterus and Fallopian tubes, the best authorities testify, and its purpose is to prepare the lining membrane of the uterus for the reception and gestation of impregnated ovum. While the function of menstruation depends on the integrity of ovulation, ovulation does not depend upon menstruation. In man thousands of spermatozoa are created and re-absorbed into the system to add to his strength of brain and body, or thrown out of his system through evil habits.

The economy of the female generative system is much the same, recent scientific studies assert. "Thousands of ova mature, rupture and become absorbed by the peritoneum during the intermenstrual phase," one author says. Perverted sexual habits or tastes, like poison in the blood, counteract the beneficent effects of the natural law which causes the absorption of life-germs for the upbuilding of vitality.

Menstruation influences ovulation from the fact that during the flow the ovaries are highly congested, and thus hasten the ripening of the germ-cells near the surface. In absence of the ovary, or in defective development, the uterus is almost always defective and the flow defective or absent. Removal

of the ovaries is sooner or later followed by a cessation of the menses; two years is about the limit of continuance.

A medical journal publishes the following from the pen of a progressive practicing physician: "The ovary is the central and essential sexual organ of females and should never be sacrificed if avoidable. The uterus and oviducts are appendages of the ovary. When extirpating ovaries sufficient parenchyma (the soft tissue of the glands) should be retained to sustain the menstrual process.

"The ovary is a closed gland, like the spleen, and *its secretion is necessary for the animal economy.*"

Wives and mothers have been so reduced in mind as to gladly undergo the surgery which removes the ovaries, for the reason that it would prevent pregnancy and undesired offspring. They do not understand good old Mother Nature. Rather they misunderstand in thinking too frequent childbearing is one of her decrees. When seed is planted it will endeavor to grow, no matter if the soil be exhausted. The parent life will be the stronger if seed-sowing is avoided, Mother Nature says. Only uncontrolled abnormal sexual appetite will generate undesired offspring.

From general consideration of the menstrual flow it may be concluded that menstruation is a nervous phenomenon; that it is a reflex act originating in the mechanism of the nervous system. But there must be a normal genital apparatus, a normal nerve apparatus and a normal blood supply. The sympathetic nervous system distributed to the blood vessels, the glandular system and the viscera have control of this function.

Menstruation should be devoid of suffering. That it is not in so many instances indicates a wandering from the laws of health in some direction. None of the phases of disordered

menstruation can be overcome without a return to wholesome methods of living.

Vicarious menstruation means that the bloody secretion may occur on other mucous membranes than the uterine, as the nasal or intestinal. It occurs mainly with defective development of the uterus, or in its absence; or it may occur in cases of menstruation suppressed at its natural source.

Painful menstruation, called *dysmenorrhea,* may be due to errors in diet, or dress, to exposure, to lack of proper exercise, to constipation, or to a contracted or congested state of the Fallopian tubes or mouth of the uterus. The afflicted parts once a month telegraph to the brain that some wrong condition exists. Menstruation is not the wrong condition, however. It is natural and should no more be attended with pain than a passage from the bladder or bowel. Almost any condition can be easily overcome but that of non-development. Sometimes the female organs remain infantile, in which cases the functions of nature cannot be performed. Disability is often inherited.

Degeneracy.

The race of womankind to-day is not as hardy as its grandmothers or great-grandmothers. Why? Perhaps artificialities of civilization have much to do with those who have not learned that natural laws of being are to be preferred. More than twenty-five years ago Gail Hamilton, a woman many years ahead of her generation in thought, wrote:

"If the women of to-day are puny, fragile, degenerate, are they not the grandchildren of their grandmothers, bearing such constitutions as their grandmothers could transmit? It was the duty of those venerable ladies not only to be strong themselves, but to see to it that their children were strong. A sturdy race should leave a sturdy race. It was far more

their duty to give to their children vigorous minds, stalwart bodies, healthy nerves, firm principles, than it was to spin and weave and make butter and cheese all day. We should have got along just as well with less linen laid up in lavender, and if our grandmothers could only have waited we would have woven them more cloth in a day than their hand-looms would turn out in a lifetime. But there is no royal road to a healthy manhood and womanhood. Nothing less costly than human life goes into the construction of human life. We should have more reason to be grateful to our ancestors if they had given up their superfluous industries, called off their energy from its perishable objects, and let more of their soul and strength flow leisurely in to build up the soul and strength of the generations that were to come after them. Nobody is to blame for being born weak. If this generation of women is feeble compared with its hardy and laborious grandmothers it is simply because the grandmothers put so much of their vitality, their physical nerve and moral fiber into their churning and spinning that they had but an insufficient quantity left wherewithal to endow their children. And so they wrought us evil.

"One would not willingly quarrel with his grandmothers. All agree in awarding them praise for heroic qualities. They fought a good fight—perhaps the best they could under the circumstances with their light. We would gladly overlook all in their lives that was defective and fasten our eyes only on that which was noble. But when their fault is distinctly pointed out as their virtue, when their necessity is exalted into our ensample, when their narrowness is held up to our ambition, we must say it was fault and need and narrowness, grandmother or no grandmother. Indeed, those excellent gentlewomen, no doubt, long before this have seen the error of their

ways, and if they could find voice would be the first to avow that they did set too great store by chests of sheets and bureaus of blankets, and pillow-cases of stockings, and stacks of provisions; and that if it were given them to live life over again they would endeavor rather to lay up treasure in the bodies and brains and hearts of their children, where moth and mildew do not corrupt, which time does not dissipate nor destroy, and whereof we stand in sorer need than of purple or scarlet or fine-twined linen."

Opportunities are better for mental development now than in pioneer times. The light is spreading by means of books and from mouth to mouth. But improvement is constant, and there should be ambition to keep abreast with the best at all times, and especially in regard to the care of the body, which may be either the temple or the prison of the soul.

Remedies for Dysmenorrhea.

Returning to the subject of dysmenorrhea, the cause should be sought. Remove all unhealthy clothing from neck to shoes. This change will work wonders. If there is constipation, use a copious enema of hot water to the lower bowel two or three times a week. If properly used the bowels do not depend on the enema for normal action, many physicians to the contrary notwithstanding. First flush the bowel to remove whatever effete matter is packing the rectum; that is passed off after retaining as long as possible; then the bowel is flushed again to its capacity. This removes the waste higher in the bowel. Passing that off, a third flushing may be taken; this time about four quarts can be contained and held for some time in a recumbent position. The water can be distinctly noticed to pass along the entire length of the colon. No one using this treatment as a prophylactic need ever have a fear of that

bugaboo, *appendicitis*. Appendicitis occurs when the colon is packed and crowds the poisonous matter into the *appendix vermiformis*. I forgot to state that after using the above treatment there is a normal action of the bowels the next day.

In reference to diet, if the idea of nourishing the body gives way to pandering to the palate the appetite will degenerate, so that pastries, confections and stimulants are apt to be used in excess of nourishing foods. Beans, peas, oats, salmon, eggs, beef, all contain plenty of nitrates, or muscle-forming food; the same foods, and codfish in addition, contain an abundance of phosphates, or food for nerve and brain; butter, rice, cabbage, corn, beans, provide the carbonates or fat-forming foods —white bread may be added as a fat-former.

Mrs. Rorer, an authority on sanitary and other cooking, says that eggs and sugar and butter are all good as articles of food, but when used together, as they are to make pastries, puddings and cakes, are indigestible and unfit for food. It should be remembered that it is what is digested that gives strength, and not what is placed in the stomach. All else clogs and deteriorates the digestive apparatus. Eat slowly.

A lack of equalization of mental and physical exercise will derange the system, and painful menstruation be one of the results. Try to preserve an equilibrium.

Previous to and during menstruation, drink water abundantly. Water is the most plentiful constituent of the human body. The blood cannot run in good health without it. One authority asserts that where there is painful menstruation one may be doubly assured that there is not enough water taken into the system. Unless certain of its purity, water should be boiled or filtered before taking large quantities for hygienic purposes.

An Unholy Wrong.

What is known as self-abuse is sometimes practiced among girls, and the deadly sinful habit will cause any and all the diseases in the catalogue of human ills. Young people should be cautioned against this unholy wrong to themselves, which, through dwarfing them body and soul, causes pain to their friends. Mothers, don't grow faint-hearted at this point. Your child's future welfare depends on being started right on matters relative to the generative system.

Suppression of the Menses.

Amenorrhea is retention or suppression of the menses. This state is apt to exist in tuberculosis, excessive obesity, and usually during gestation and lactation. A flow would be abnormal in pregnancy, and during the nursing period it would detract from the richness of the milk.

Where the nervous system is burdened by superfluous flesh, the menstrual rhythm cannot be smooth. It depends for its integrity upon normal nervous activity. The best remedy for obesity is said to be to keep cool day and night; exercise plentifully; do not take too much liquid; for food, beef, mutton, poultry, game, some kinds of fish, green vegetables (but no potatoes), fruits, cheese, and occasionally tea without milk or sugar. Eat sparingly and at regular intervals.

Where there is a tendency to tuberculosis, or consumption, deep breathing should be encouraged, and a very nutritious diet used. This is a malady only curable by attention to the laws of health.

Suppression of the menses sometimes takes place suddenly by exposure, or mental emotions. In which case use the hot sitz bath, and drink freely of hot water; use the hot enema for

the lower bowel and vagina, and go to bed. Relief will usually follow such treatment if the case is not too aggravated.

If the flow cannot be induced by one or two repetitions of the treatment, discontinue until the next regular period arrives. In the meantime every precaution should be used to establish normal health. Bathe daily, eat rationally and regularly, exercise outdoors, use the hot water flushing of the colon twice a week, and keep the mind pleasantly occupied. At the approach of the period repeat the hot water treatment.

Unless there is continuous disturbance do not be uneasy about suppression.

Excessive Menstruation.

Menorrhagia is too profuse a flow, a flow that weakens or exhausts. Its cause arises in anything that produces too great a determination of the blood to the generative system, or in debility arising from any cause. Shocks, violent exercise, injuries, difficult labor, too frequent intercourse are among immediate causes. The excessive flow may occur in the usual time of menstrual discharge, or there may be a slighter discharge occurring as often as two or three times in a month.

The normal discharge lasts from two to six days, amounting to from four to eight ounces. What might be an excessive flow in one woman would be but normal in another; temperament largely determines the quantity.

Some of the symptoms of this derangement are shortness of breath, great lassitude, faintness, dizziness, headache, leucorrhea between periods, irritable nerves. The general health soon yields to the waste, and one becomes an invalid or sacrifices her life.

In treatment for cure, the cause must be ascertained and removed. This is the first thing to be persistently considered in chronic diseases. Palliative measures are, of course, taken

for immediate relief. For menorrhagia, the temperament must be taken into consideration. The woman of feeble constitution must be given every opportunity to gain strength. Congenial surroundings, with all sanitary precautions, come among the first. Pure air, pure water, pure food of the most nourishing character; gentle exercise, clothing comfortable, with special attention to the extremities: these are curative agencies necessary to recovery of health. The massage is also valuable in that it equalizes circulation, and stimulates both muscular and nervous system. Perhaps the simplest manner to administer is by means of the massage roller, which consists of a series of wheels each turning separately. Each wheel is about an inch and a half in diameter, on a flexible axle and set in a polished handle. The rollers are made in various sizes. These are also useful for the plethoric woman in reducing her size and weight.

For excessive flowing in the full-blooded woman overnourishment and overstimulation should be avoided. In both temperaments the bowels should be kept freely open.

Irregularities in menstruating are usually due to ovarian disorders. As before remarked, integrity of the menses depends on ovulation. Ovarian disease, of course, interferes with the process of ovulation.

It sometimes occurs at the dawn of puberty that the girl has all the symptoms of the menses except the discharge. This will be found to be due to an imperforate hymen, which is of rare occurrence. The following case, related by Dr. Crowe in the *Medical Brief,* illustrates the case:

"Miss N——, aged sixteen, had been under treatment for a year. Her doctor left the city to be gone for some time, and I was called to see her. On my arrival I found her suffering with intense pain in the hypograstic region (lower part of

the abdomen). She was almost exhausted. She stated that she had been having such attacks every three to five weeks in three years, but that the pain got harder and lasted longer every month. She had all the symptoms of inflammation but the sanguineous flow. Her general health was considerably impaired, appetite poor, nausea, bowels constipated, constant headache, face covered with eruptions. She said she had never menstruated. I at once suspected imperforate hymen. * * * Upon examination I found the abdomen somewhat enlarged; the uterus was about the size of a cocoanut, hard and firm; the hymeneal membrane had protruded between the labia; the perineum was bulged out and looked as if the head of a child at full turn was about to be expelled. The lower extremities were considerably dropsical. I punctured the hymeneal membrane, permitting a stream of blood the size of a knitting needle to flow. I placed clean napkins to the vulva, and ordered them changed every three hours until I returned next day. I saw her twenty-four hours later. Found her quiet, with no pain. During the night they had failed to attend to the napkins, and her bed and clothing were saturated with blood. The uterus was reduced in size. I had the external genitals cleansed and then made a complete incision of the hymeneal membrane, letting out the contents of the vagina. I gave her a vaginal douche, put a strip of iodoform gauze between the cut edges of the membrane to prevent readhesion. I then placed a pad of gauze to the vulva, held in place by a T bandage, and placed her in a clean bed.

"When I saw her next day she wanted to get up. I gave her another vaginal douche and directed her to keep small pieces of the gauze between the labia to prevent adhesion. Next day she got up, and since that time has been attending to household duties. Her face has become smooth, no eruption

to be seen; she has since been menstruating without pain every twenty-eight days."

Cleanliness must be observed in regard to the external genitals. A vaginal douche of tepid water is excellent in connection with the daily bath. During the discharge the napkins should be changed at least every morning upon dressing and at night upon retiring. Absorption of the disorganizing blood is not wholesome, of course, and that is what occurs if napkins are worn too long because they are not much stained.

Relative to cleanliness of the private parts, Dr. Foote says: "Some physiological lecturers and writers have said that the procreative organs have glands which secrete and exude matters having a peculiar odor. This is not true. It is true that they are liberally supplied with sebaceous glands to moisten and lubricate the parts. But these are as pure as the synovial fluids which oil the joints. If there are peculiar odors it is because the parts have been neglected. The secretions may accumulate and undergo a change—become rancid like unsalted butter—but this is to be charged to uncleanliness rather than to sweet old Mother Nature. In many persons one thorough ablution of the parts per day will prevent odor; in others two may be necessary. But whether two, three or a dozen be required, every man and woman, every boy and girl, owe it to their self-respect and to those with whom they associate to see that every part of the body is as clean as the face."

PART II.

CHAPTER III.

The Marriage Relation.

AN erratic genius once said, "Any fool can get married, but it takes a man of sense to resist the temptation until he can afford such luxuries." Under the prevailing conditions of past and present this expression is certainly full of truth. A woman in the partnership of marriage is a consumer, a non-producer, the husband working for the home and family. So the illusion that a man of family can live as economically as a bachelor is but an illusion. The home-maker may have had other and more congenial employment, which she dropped to assume the unsalaried position of housewife. It will require a measureless love to aid almost any pair to adjust themselves successfully to the new conditions of a new home.

Preparation before assuming the marriage relation will enable any two people of average intelligence to forestall error. Error as to the meaning of marriage is responsible for the largest percentage of failures in this relationship. This error more than likely has its root in early training as to the functions of sex. But any whose spiritual consciousness has been released from the binding force of inertia are eager and anxious to behold the face of Truth in all things; they obey the injunction, "Seek, and ye shall find; knock, and it shall be opened unto you."

No person not having experienced marriage can understand the possibilities of that estate, even though they read all the best that has been written on the subject. It might be likened to reading of the glories of sea or mountain. One may be uplifted by the reading, but can never have a realizing sense of the greatness and grandeur until within their environs. At first glimpse the mountain or sea may or may not present a lovely appearance; but a close association will develop a deep peace and restfulness of spirit by which one may realize the harmony which pervades the universe. In the true marriage the sense is the same. Marriage is a law of nature, obedience to which should bring happiness. The laws of life must be understood before obedience can be rendered, however. Therefore, seek to know the truth according to most recent developments.

Treating the subject in its highest sense, one writer says: "Not only do the parties who enter into partnership have a very poor conception, and no experience at all of the conditions they agree to fulfill, but a great deal of useful knowledge which they ought to have is withheld from them under the mistaken idea that all which treats of sex is impure and tends to degrade humanity. It is difficult to understand how a young girl kept in ignorance and taught to repress as degrading all sexual desires can be induced to enter the marriage relation. It is not difficult to see that if she does enter it under such conditions her prospect of happiness is greatly diminished, and why so many regret the step they have rashly taken.

Where Ignorance is Not Bliss.

"A proper regard for the married happiness of youths of both sexes ought to lead to their being taught:

"1. That sex force is a natural force as pure and as deserving of gratification as any force within us. If society has placed it under restraint it is not because its expression is degrading to the human character, but *because its uncontrolled results are inimical to the advance of civilization.* (Inside of marriage as well as outside.)

"2. That all expressions of love are due to the presence of sex force. These expressions may be such as may be accounted most chaste, or they may be coarse and aggressive, but the source is the same, and they are all attempts to equilibrate the sex force within us.

"3. That marriage is the legal method for this equilibration sanctioned by society, which looks upon it as a sexual contract, entered upon for the gratification of sexual desires.

"These are fundamental truths which must be recognized and acted upon by all persons entering the marriage relation, if they would have a reasonable prospect of living happily in their new conditions.

"Aside from the sexual relation marriage is a union of the economical and social resources of the parties concerned, and requires for its success many other qualifications, yet these conditions are seldom responsible for its failures."

I do not like the use of the word "gratification" in the foregoing; it suggests the realm of the senses exclusively. But from the work quoted the writer fully convinces one that he is trying to aid to a clean conception of the forces of sex, and does not purvey to the sensualist.

"For Better or for Worse."

Adelaide Proctor in a little poem says that

> "A loving woman finds heaven or hell
> On the day she is made a bride."

This is not unchangeably true. It has often occurred when an innocent, ignorant girl, negatively pure, has been married to a man of habits positively evil. Trained to the belief that intimacy is impure, she may be shocked and horrified to be embraced by a man who approaches her without a sense of delicacy; and thus she may find "hell." Women sometimes sell themselves, or by their parents are sold into a state of dependence and sexual subjection, the consideration being a home, or a name and respectability, or money, or the belief that subjection will be rewarded in the world to come. Both husband and wife often believe in the "physical necessity" theory on his part. You can almost select them from among your friends from their personal appearance and from the brood of children that spring from such a parental source. He is coarse and dominating, she wan and faded and pathetic, the children cringing or unruly; the family anything but realizing that the strength of the nation depends upon the integrity of home.

"The Kreutzer Sonata."

Another instance of failure occurs where both reciprocate in gratifying the animal propensities until the better nature is consumed. Tolstoi dwells upon this as a typical marriage in his "Kreutzer Sonata." Everybody old enough to contemplate marriage and all the married ought to read "The Kreutzer Sonata" to obtain a true picture of the possible horrors of modern matrimony.

But the greatest of the evils resulting from ignorance of or unfitness for marriage fall upon the offspring—little weaklings, whose welfare was not consulted before birth, and very little afterward.

Ignorance that expends itself upon a married pair does

damage enough, but it should be prevented further extension. In most women passion is cooled after a few months of marriage, but their conjugal partners, not so soon to be sated, insist upon marital rights. Then comes torture the more keenly felt if spiritual consciousness becomes quickened.

A Mother's Bitter Cry.

One woman who had lived to look over her past said:

"The long bitter years of our sowing-time are over; the time when unwelcome motherhood was a frequent, and by me an insanely dreaded incident, in our home. But God pity us, 'the harvest is at hand.' We are reaping estrangement from each other, growing further and further apart every day; reaping also in our children, who are careless of our comfort and our wishes.

"Bless them, they do not know! It is a marvel to me that they are as thoughtful as they are; for you know that no unwelcome child can render to its parents that tender, loving obedience which is the birthright of those rightly born.

"You will not misunderstand me. You know me well enough to know that my babies were all welcome when they came, and for months before they came every thought of them was a prayer; but the act that called them into life was loathed with every nerve of my body, and the knowledge that pregnancy had come to me drove me to the verge of insanity.

"And yet there was a time when my babies were wanted, when their inception was welcome, and each pain was gladly borne because it was bringing my baby nearer my longing arms. That was before I had the loathsome truth burned into my soul that, in my husband's mind, my mission in life was to gratify his animal desires; that to this end was I wooed, married and kept; that, no matter what suffering it brought, no

matter how much my higher nature rebelled, that one demand had to be satisfied. That knowledge was love's death-wound; and when love died motherhood became a curse."

Lillian Harmon in a lecture entitled "The New Martyrdom" quotes a physician as saying, "Fatherhood is a man's right, his privilege." Surely, surely, it is so. That point is something to be respected. A man who craves paternity will so conduct himself, even in his bearing toward the child's mother, to insure the best possible conditions for the beloved offspring. A man who craves offspring will (since it is he who has the choice) select an intelligent, capable woman to mother these desired babies.

"Choice for Choice, Passion for Passion."

A woman who loves, according to a German philosopher, will "not meet the passion of man passively, without intelligence and without will; but, in the consciousness of her equal sovereignty and dignity, she ought to demand and exchange choice for choice, passion for passion, devotion for devotion, adoration for adoration." Such men and such women command admiration. To them go life's choicest blessings.

A certain class of husbands are regardful (?) of their wives, having much concern as to enforcing motherhood upon them. That is, they will endeavor to find out every available means to prevent conception or destroy the fœtus. In most instances the wives accept these conditions as the least of two evils. However, they are sometimes awakened to self-consciousness by waning health. When one of such prays to be excused from being a passive participant in her own destruction, she is met with the taunt, "You no longer love me." Love may not have gone at that time, but it cannot be forced to remain by sneers and taunts; go it surely will.

Wives of these coarse men are many times of the temperament which craves affection; but they shrink from caressing because the spouse demands intercourse as the inevitable result.

"Amativeness," says Dr. Foote, "may be employed in developing and gratifying naturally the social and affectionate instincts; in imparting to woman the strong magnetism developed by man; in modifying the masculine elements of man with the spiritual aura of woman; in making both sexes healthier and happier. It is an escaped tiger from a menagerie when it takes on the spirit of selfishness and seeks the gratification of its impulse without regard to the rights and happiness of others."

It is at this point women should spur their individuality into action and claim possession of their own bodies. Surely the body should belong first and foremost to the ego which lives therein. In the language of Mrs. Stanton, "Did it ever enter into the mind of man that woman too had an inalienable right to life, liberty and the pursuit of her individual happiness?"

Helen Gardner, a woman who has done heroic work for her sisters, says: "Self-abnegation—subserviency to man—whether he be father or husband, is the most dangerous that can be taught or forced upon her whose character shall mold the next generation. She has no right to transmit a nature and a character that is subservient, subject, inefficient, undeveloped; in short, a slavish character, which is blindly obedient, or blindly rebellious, and is, therefore, set, as in a time-lock, to prey or be preyed upon by a society in the future."

There are many shades of belief as to the marriage relation, varying from that which obeys every impulse for intercourse to that which only holds the relation for procreation.

For the latter there is much to be said in its favor, when husband and wife are in harmony on the subject. They do not exhaust their vital powers; they do not thrust life upon helpless innocents without fully considering the possibilities of good to grow out of the life by them begun. Their babies are "desired, designed and loved into existence." Dr. Cowan, in "The Science of a New Life," advocates intercourse for procreation only, but he seems not to have understood that sexual powers are as clean as we choose to make them; to him all who do not agree as to his idea must necessarily be wrong.

Dianism—The Love-Union.

There is a practice acceptable to many which is called Dianism. Married pairs who agree to live according to the precepts of Dianism preserve the lover love of courtship indefinitely, provided they do not live in different mental atmospheres. These equilibrate the male and female elements by all the pretty and pleasing attentions that lovers use during courtship, and in the marital couch embrace each other in the state of nudity. The interchange of magnetic elements tranquilizes and strengthens each of the participants.

Says an advocate of Dianism, "As men develop marriage is looked upon as something more than a procreation association." Which saying is true, whether all progressive people are believers in Dianism or not.

Another practice for equalizing sex force in the marriage relation is much the same as Dianism, except that husband and wife unite as for intercourse, but agree to what is termed a love-union. The exchange is magnetic; in neither is the union allowed to culminate in the nervous spasm called the orgasm. The union of complementary male and female ele-

ments is perfect where there is mental as well as magnetic harmony. Procreation is entirely controlled by either of the above methods. The male impregnating fluid is retained to develop man's own organism. Numberless advocates of man's physical need to discharge the product of his generative system say it is contrary to nature when this product is retained; or that it is disastrous to health. This idea is combatted by the best thinkers of both sexes. Those seriously seeking for Truth are not going to turn from her when found because she may not look as they wish she would. Acton says: "It is a generally received idea that semen, after having been secreted, can be reabsorbed into circulation, giving buoyancy to the feelings and the manly vigor which characterizes the male. * * * In fact who is ignorant that the semen reabsorbed into the animal economy augments in astonishing degree the corporeal and mental forces?"

"Steam is water transmitted into power and motion through heat and machinery," says a recent periodical. "Vitality is food transmitted into life through the marvelous mechanism of the human body. How it shall manifest itself depends upon the will of the individual." The balance wheel of human power, lying as it does in the sex-nature, may be set at naught very easily by lack of self-control. "By their fruits ye shall know them." That which assists individual unfoldment to bless society is good; *vice versa.*

A Weary Wife's Sad Story.

The fruits of uncontrolled procreation and marital indulgence are too well known to need repetition, but it will not be inappropriate to quote from a letter written by a middle-aged woman to a young woman contemplating matrimony. What is said illustrates a not uncommon phase of married life:

"Your letter came today. I will do something I don't often do—go back into my own past life—when I was a wife. I was married when only sixteen to a man I loved as well and had just as much faith in as you have in your lover. My motives were just as true as your own, and I meant to be the best wife in the world. He meant to be good, too, I have no doubt, but because we were not adapted to each other we were made wretched. He was twenty-two; strong, healthy, and with large sexual demands; while I was young, with my passional nature undeveloped; and from this one cause sprang all the trouble. I thought him exacting and selfish, and he thought me unaccommodating and capricious. I wanted to be loved and petted, but could not go near him without exciting his passion, and as soon as he was gratified he would answer my tears and reproaches with 'Damn you, keep away from me, then.' If I refused, his great, strong fingers would sink into my flesh and force would compel submission. Think how it would seem to see yourself spotted with black and blue marks from a husband's fingers, and this not for once only, but never to be quite free from them. Now, don't think mine an extreme case. He meant to be a good husband and thought he was. He gave me 'a good home,' and I did not have to work, and all he asked was what marriage is supposed to secure to every husband. He did not intend to be unreasonable and thought and said, 'The sooner you do as I say the sooner we will have peace.' I thought so, too, and tried hard to be an obedient wife. I would resolve not to resist again, but the Scotch blood was strong; there was too much freedom in my nature, and before I knew it I was fighting away 'tooth and nail.' As a result I would be bruised and beaten, and perhaps made sick and have a doctor before I got over it. Two little babies were literally killed before they were born, and the one that

did live I have seen often in convulsions from 'sexual vice,' either a transmitted tendency or a birthmark due to the infernal nastiness I was forced to witness during pregnancy. When at last I watched his little life go out, I knew that he was spared a life of imbecility or idiocy, and I could not mourn. It is a terrible thing to endure the agony of child-birth without its compensating hope or joy; to know through it all that your baby is already dead. Killed, too, in such a way; and knowing that even if you live through this it will be only to repeat the same thing over and over again. * * * I am an old woman, worn out and weary. I have lived a homeless, hopeless, loveless life; and, looking back, I can see that being unequally yoked in marriage has been the cause."

The abnormal sexual appetite common to the adult man is due to a number of causes, among which may be named stimulating food and drink, and a continuous dwelling upon sexual subjects. "If a man engages in physical exercise the muscles become developed; if he engages in intellectual study, the brain becomes enlarged and developed; and if his sexual organs are constantly in a state of excitement from allowing his attention to be continually directed to this sphere, then they must become abnormally developed," says Dr. Elliott.

Man's Ungoverned Passion.

Outside of marriage a man is punished who forces his sexual attentions upon a woman. In what way is wrong made into right by the legal form uttered by clergyman or judge? Wrong *cannot* be made into right. "Love worketh no ill to his neighbor."

Says Dr. Perrin: "If Newton, Kant, Fontanelle and Beethoven could live their many honored years with no indul-

gence of passion, surely other men might abstain without injury. The ungoverned passion of man is prolific of evil; and, like producing like, the father who has never learned self-control may give his son not only form and feature, but the germ of the same fierce, clamorous desire, which in its full development will prove a heritage of woe to that son and others. That which polite language veils under the designation of social evil, and which desolates so many happy homes and brings its quick black harvest of misery, remorse, disease and death, chiefly lives because man does not know aright, does not duly reverence and honor woman and keep in subjection that which may become one of the monster passions of his heart."

Happy Marriage Affords the Only Security.

There is no physical craving for sensual gratification in the mind that has inherited no taint, any more than there is a natural craving for alcoholics. Men and women, both young and old, will seek the society of opposites, in accordance with nature's law, just as plants turn to the sun. But they will only love in physical union when soul meets soul, and mind and body harmonize. Marriage is the only estate that finds perfect security for the best development of the two who so unite. The blending of sex-force generates health and strength, physically, mentally, spiritually. Blessed be happy marriage. Therein the true man and woman meet on an equal footing and realize the highest form of comradery and friendship.

True happiness depends upon the highest use of faculties and privileges. When used in cheap pleasures they deteriorate; satiety comes in the place of satisfaction.

Mrs. Burnz tells the story of a young married couple who loved each other, but who were ignorant of means to control

generation. In five years there were four babies who had come to them. Then the husband decided that the load of care for them both was becoming too heavy, and made up his mind to restrain his sexual appetite. He was successful, and remained a devoted friend and lover of his wife and a kindly, considerate parent to their babies. This is possible and best to some, while to others the sexual love-union embraces the beauty and pleasures of marriage. The love-union is as distinct from the full procreative act as the kiss or caress. "If it is noble and beautiful for the betrothed lover to respect the law of marriage in the midst of the glories of courtship, it may be even more noble and beautiful for the wedded lover to respect the unwritten laws of health and propagation in the midst of the ecstasies of sexual union."

Exchange of magnetic elements rebuilds waning vitality; while the full procreation act, which ends with ejaculation of the seminal fluid, and a nervous spasm on the part of both participants, offers no compensation to either, except gratification of the animal impulse. It is only right when children are desired.

"Opportunity Makes Importunity."

Married people should not occupy the same sleeping-room, or if the same room, not the same bed. No two people should sleep together. But the custom has prevailed so largely in conjugal life, to many people marriage means the legal privilege of sleeping together. For the control of the procreative impulse nothing better aids than separate rooms or separate beds. "Opportunity makes importunity," says Dr. William Hall. "If married persons slept in different rooms the indulgence would only be thought of when there existed a natural, healthy appetite."

If there is any one thing I would recommend especially to young people about to marry it would be not to plan their home without single beds for their own use. This is an immense step in advance of the past and will be a great aid in controlling the marriage relation, to their mutual uplifting and profit. Double beds are a relic of a primitive age, and should be relegated to the past with other things which the present has outgrown. And no matter who else may sleep together, husband and wife should not.

PART II.

CHAPTER IV.

Conception and Pre-Natal Culture.

THE truism, "To be well born is the right of every child," includes many volumes of pregnant truth. And the very beginning of it is that conception must occur purposely, designedly, the outgrowth of the love of parents.

No woman should allow herself to be made a mother unless she chooses maternity; no true man will gratify his animal appetite for procreation at another's expense. As before mentioned, the function of amativeness is separate from the procreative function. The proper use of the sexual organs for love's expression raises the marital embrace to a spiritual plane where it ceases to be degrading.

"Evolution means progress," says C. Staniland Wake, "and progress implies improvement, without which there could be no evolution; but improvement of the human race will not be further possible unless the marriage relation is regarded from a higher standpoint than that of sexual indulgence."

Among many books written to solve the question of unchecked procreation, two by George N. Miller stand out boldly: "The Strike of a Sex" and "Zugassent's Discovery." In the former the strike is presumed on account of enforced motherhood. It is ended by "Zugassent's Discovery," which re-

lieves womankind of the tortures of unwelcome maternity. Mrs. Stanton many years ago said: "So long as children are conceived in weariness and disgust you must not look for high-toned men and women capable of accomplishing any great and good achievement." She was a seer—one who perceived the germ of true progress.

"Zugassent's Discovery."

The love-union, called by Miller "Zugassent's Discovery," stops short of seminal ejaculation by the husband and short of the orgasm by the wife. Arguing for marital self-culture, "Zugassent" says:

"Man's superiority to the brutes is read in his continual advance in the conquest of nature. The brutes stand still; men reflect, energize and conquer. The seeds of the final supremacy over nature lie in the full subjection of man's own body to his intelligent will. There are already an abundance of familiar facts showing the influence of education and direct discipline in developing the powers of the body. We see men every day who, by attention and painstaking investigation and practice in some mechanical art, have gained power over their muscles for certain purposes, which to the mere natural man would be impossible or miraculous. In music the great violinists and pianists are examples."

Among the more refined of humankind, sexual communion is voluntary; among the uncultured the physical union is regarded as a necessity. Contrast the usefulness of the two classes. In the kingdom of lower animals all courting has for its aim and end procreation; they obey the same instinct as when time began. But the undeveloped human does not stop with procreation. The act is repeated in season and out of season, pregnancy or not. It is marvelous, not that

so many sickly or idiotic babes are born, but that so many are born as bright as they are.

It is not an easy work to overcome the prejudice of ages in regard to the marriage relation. Only those of progressive tendencies will give heed to new ideas. Even with them it often requires much time and many volumes to convince.

The Mind's Power Over the Body.

Objectors to marital self-control argue that it is against nature. They are in error. Self-control works *with* nature to perfect the machinery of the human mind and body. What may seem at first impossible is, in reality, only impossible to those lacking in character. Any of the departments of the body are under control of the mind, in a greater or less degree. As breathing, for instance. This goes on unconsciously, enough to sustain life. But conscious breathing, deep and full, increases health, increases the power to resist disease. Culture aids in improving nature in every bodily function. Nowhere else is improvement more needed than that of the sex function. When used especially for physical union, sex tends to the animal origin, but when raised above the plane of feeling or emotion the whole nature partakes of the uplifting. "He is most powerful who has himself in power."

Following are a few extracts from testimonials printed by G. N. Miller:

A Four Years' Honeymoon.

"For two years after becoming engaged I delayed marriage because I did not think my income sufficient to support wife and children. Happily for me, a friend wrote me about 'Zugassent's Discovery.' The ideas contained therein were so different from all my preconceived ideas of what consti-

tuted marital happiness, I was inclined to reject them as impractical and absurd. But the more I thought of the matter the more clearly I saw that if there was a possibility of these new ideas being true, they were exactly adapted to a man in my circumstances. * * * The wholly new thought that retaining the vital force within himself would naturally make a man stronger, cleaner and better also seemed to me not irrational. * * * I have had a continuous honeymoon for four years besides having the daily benefit of my wife's invaluable help in our business. * * * In the light of my own experience I regard the idea that the seminal fluid is a secretion to be got rid of as being the most pernicious and fatal one that can possibly be taught to young people."

— "Since my husband became acquainted with 'Zugassent's Discovery' he has endeared himself to me a hundredfold. * * * His very step sends a thrill through me, for I know my beloved will grasp me and clasp me and kiss me as only the most enthusiastic lover can. * * * But it is not alone as a cherishing lover that my husband has become my crown of happiness. He has grown perceptibly nobler in character, in purpose, in strength, in all the qualities that make a man Godlike, so that besides a lover I have a strong friend and wise counselor."

—"It avoids the opposite evils of asceticism and self-indulgence, and does more than any other single thing to make marriage a perpetual courtship. I am a husband of fifteen years' standing, and therefore speak of matters that are not strange to me."

—"My age is seventy, and, thanks to 'Zugassent's Discovery,' my health is good, and I am as vigorous as ever I was. My only regret is that I was not informed of it earlier

in life. It is not only a splendid sanitary measure, but is the promoter of the greatest harmony in domestic life I know. * * * While in this practice a new life is not developed, both parties experience a renewal of life force which is in the highest degree wholesome."

Reproduction an Incident, Not the End, of Life.

The bringing into existence of children is not woman's business in life, no more than it is man's. Together they call a being into life. But to woman has fallen the chief burden of the care of offspring. Many teachers and preachers of the "obsolete and decrepit past" have over and over again said that motherhood was the sole object of woman's existence, until many yet believe it. It is like hypnotic suggestion; so many have received the idea without question or analysis, being perfectly passive subjects.

The trenchant pen of a modern thinker quite recently gave expression to this thought: "There is nothing in the achievements of human motherhood to prove that it is for the advantage of the race to have women give *all* their time to it. Giving all their time to it does not improve it either in quantity or quality."

Motherhood does complete woman's development, but when she is made to reproduce, like the cow or female bison, only the animal department of her nature is given opportunity. It is something to be a complete woman, but it is more to be a fully rounded-out human with mind and soul and body perfected equally. Reproduction, for best results for all concerned, should be an incident and not the aim and end of life.

The Desirability of Offspring.

Having said so much as to controlling procreation, the desirability of offspring is well worth consideration.

In men and women of natural development parental love is an instinct. To many married people children come only as consequences of the sexual relation, are merely to be dealt with at the least possible inconvenience to themselves. But these are not the parents through whom the race improves. Material for proper parentage is rarely found in social extremes. Poverty too often closes the avenues of insight, or callouses the germs of good that they cannot grow; while in the majority of extremely rich, the pursuit of entertainment, dress, frivolities draw them away from the better things.

"Fra Elbertus" says: "The rich are not the leisure class; and they need education no less than the poor. 'Lord, enlighten thou the rich,' should be the prayer of every one who works for progress. 'Give clearness to their mental perceptions; awaken in them the receptive spirit; soften their callous hearts and arouse their powers of reason.' Danger lies in their folly, not in their wisdom; their weakness is to be feared, not their strength." To the which we add "Amen."

The wealthy have the power to aid their opposites, the poverty-oppressed. Who will approach conservatism from within and arouse its latent energies for good?

But wherever true enlightenment exists, poverty and wealth are equally powerless against parental love. There may be special reasons why there should be no reproduction; health may not be such as to justify it; the family resources may be too limited, etc. However, instead of lavishing their entire affections upon a cat or lap-dog, they can give of their best to the unloved children of the world, who are many.

"Love somebody. Help somebody. Lift up somebody. Bless somebody. This is the divine law.

The Blessing of Unselfishness.

"Live not unto yourself alone. Forget your selfish schemes. Get out of the narrow shell of your egotism. Brighten the lives of those around you. Make the cup of life sweeter for some other of God's children." Thus admonishes one of our modern prophets. Many childless people shrivel up within themselves, though, indeed, many parents ask only for Heaven's blessings on "me and my wife, my son John and his wife. Us four, and no more."

For the generation of another being male and female elements are necessary. Woman and man are equally human, equally responsible in the begetting of another life.

"It is a far more awful thing to *give* than to *take* life," Helen Gardner says. "In the one case you invade personal liberty and put a stop to an existence more or less valuable and happy. In the other case in giving life you invade the liberty of infinite oblivion and thrust into an inhospitable world another human entity to struggle, to sink, to swim, to suffer or to enjoy; whether one or the other no mortal knows, but surely knows it must contend not only with its environment, but with heredity—with itself." These things the selfish will reproduce oftener than they who would only endow their progeny with what is best. But, as another writer asserts, "One good man like George Washington, Peter Cooper or Dean Stanley is worth to the world many *hundred* ordinary people."

What is Required to Have Well-Born Offspring.

The requisites for having a well-born child are so simple no persons who really desire to be parents of such offspring need to fail in the attempt. The child must be "desired, designed and loved into existence," as the first requisite. If any

special endowment for usefulness is desired the minds of both parents should, before conception, be filled with thoughts concerning the same. Any specialized art or industry may be chosen. Whatever is best concerning that branch should be read and talked about for some time previous to the act which calls the beloved one into life. Those who do not practice the full propagative act at all times do not need to be cautioned to refrain from it for at least two weeks prior to conception.

Menstruation is a special preparation of the lining membrane of the uterus for reception of impregnated ovum. Hence to be most in accord with natural conditions, impregnation should occur soon after the menstrual flow. In normal woman creative life speaks loudest soon after the menses.

The child's character is influenced very largely by the moment of conception, and to become endowed with the best qualities of each parent, morning, when mind and body have been refreshed by rest, should be chosen as the time for launching a new life.

After this the most susceptible time in human development exists for nine months. They should be loving, beautiful, joyful, harmonious months.

The Process of Sexual Generation.

Prof. Haeckel, the scientist, tells us that "The process of fertilization in sexual generation depends essentially on the fact that two dissimilar cells meet and blend. * * * It consists merely in the fact that the male sperm-cell coalesces with the female egg-cell. Owing to its sinuous movements the very mobile sperm-cell finds its way to the female egg-cell, penetrates the membrane of the latter by a perforating motion and coalesces with its cell material."

The female germ is larger than the male germ, but fewer are produced. The *ovum* is calculated to vary from one-one-hundred-twentieth (1-120) of an inch in diameter to one one-hundred-fortieth (1-140) of an inch; while the *spermatozoon* is about one six-hundredth (1-600) of an inch in *length*. The ovum is composed of the life-germ, and material to support life for a few days after impregnation. It has two membranes, the *ammion* and the *chorion*. The spermatozoon, under the microscope, is shown to have a head, and a thread-like appendage, or tail. These cells are produced in enormous numbers. Every ejaculation of semen contains some millions of them. Observation has shown the spermatozoa to differ in power of movement and perfection of development. In proportion to their size the journey through the mouth of the uterus to find the ovum is a long one, and only the most vigorous are capable of making it. The spermatozoa do not have power of movement until other secretions are added, as when ejaculated: within the testicle the seed is jelly-like, and seems to consist of bundles of fibers; when the fibers are separated as they are in passing to the seminal vesicles, the shape of the spermatozoon may be seen. In the procreative act in complete union the mouth of the womb meets the head of the penis and the semen is thrown directly into the uterus. But even where the wife is a passive participant, and the seed is left in the vagina, the spermatozoa may live for hours or even days, and find their way within the uterus. They are assisted by the ciliated epithelium lining the cervix, or neck of the womb, the microscopic cilia which vibrate toward the interior aiding their progress.

As soon as conception takes place a new life is begun. From

that time parents should strive to make the best possible conditions for the child.

For nine months the mother carries the new being within her own body. During this time, it is both her duty and that of the child's father to do all in their power that the child may be a wholesome, well-developed specimen of its species.

No married couple will desire, design and love a babe into existence without the first requisite—good physical health. They can transmit only what they possess. Mr. Grant Allen said: "To prepare ourselves for the duties of paternity and maternity by making ourselves as vigorous and healthful as we can be is a duty we owe to children unborn and to one another."

The Period of Pregnancy.

THROUGHOUT the period of pregnancy the prospective mother should exercise daily with the view to strengthening the back and limbs, but neither at gymnastics nor manual labor should she exhaust herself, or the child would be lacking in vitality. Where a woman does her own housework, during the last few months it is always well to hire a maid-of-all-work to share the labor and responsibilities while the mother-to-be rests and attends to her own and her babe's needs. To those to whom this appears impossible it may be added that it is economy in the right place. When strength is exhausted in pregnancy more will be expended in doctor's bills for mother and child than the cost of an assistant five times over. To live properly is to obey nature's laws, one of which is, do not exercise to exhaustion. This is imperative in pregnancy. On the other hand, a life of inactivity is worse; the muscles get flabby and all the functions of the body are poorly performed, from which both mother and babe suffer.

Helpful Physical Exercise.

A simple, restful, helpful exercise is that of lying flat upon the back, and preferably upon the floor. Inhale through the nostrils until no more air can be contained, and then slowly exhale until the lungs are deflated. Repeat several times, or as often as possible without causing dizziness. Rest passively for some moments and then try to assume a sitting posture without touching the hands: the back is very much strengthened by such exercise. The muscles of back and abdomen are those most needed in parturition, and which when quite strong do not cause pain and exhaustion, so commonly the fate of women.

An excellent breathing exercise for pregnant women, in particular those who customarily wear corsets and tight clothing, is this: Stand upright with heels touching and toes turned out; place hands on hips, fingers resting on the diaphragm, thumbs on soft part of the back. Inhale slowly through the nostrils, deeply, until the hands feel the waist expansion. Repeat about five times at first, increasing the number of times at each exercise. Conventional dress prevents this part of the body from developing in size and strength.

Before beginning any exercise the erect position should be assumed: Raise the chest, draw in the abdomen, extend the joints to their full limits, hold the crown of the head high and the chin in.

The Value of Rest.

Rest is the natural sequence of exercise. The body has best opportunity for preservation when rest and exercise equal each other. Exercise in pregnancy enough to become agreeably weary, and then rest. Rest often means a change

of occupation. If, after exercise and a bath, the senses do not call for sleep, follow some line of study, especially that line with which you would wish the babe endowed. This should be persistently followed throughout the duration of pregnancy, though never to the extent of causing brain-weariness. Idleness will result in a dull, inactive child. *Ennui* should be regarded as a danger-signal. Idleness must not have place in the being of one seeking for the heights. Industry is a lord of nature. One can not go forward and *not* be active. "The work which is performed with pleasure and activity of the emotions is retained as a permanent acquisition in the development of character."

There are some whose duties fill all their waking hours, and to those especially should come an hour of repose—absolute rest. "The habit of repose brings capacity for presence of mind; it brings the mind into condition to act promptly in emergencies. To increase and store up power is the ambition of all, but how to accomplish this is a knowledge belonging to few." "Mental stress may be greatly relieved by assuming an easy position and thinking only of rest."

"The very thought of repose brings a feeling of repose. Believe you can get rest of mind through rest of body, and you can do so. Believe you can have easy mental attitudes through easy physical attitudes, and you are in possession of a valuable receipt for health and strength."—Dr. Mary R. Melendy.

When she goes to her room to rest, the housewife should loosen every garment that in any way compresses or restricts her muscles. She should lie flat upon her couch, or bed, and, with the idea of rest uppermost, breathe deeply, calmly. It may aid her to repeat the word "rest." Relax, give up all other thought but that of rest, calmness, peace, and she will

be restored to herself and be of far more service to her family than had she kept on and on with the duty which may become a grind.

The Need of Fresh Air.

FRESH AIR is of the utmost importance. It is relatively more than food and drink to the economy of the body. And every mother-to-be should spend as many waking hours as possible out of doors, filling her lungs with the good air of heaven. One authority says: "Four or five hours of out-door breathing, daily, is the very least compatible with health for adults." There is vitality and strength to be gained from out-door exercise that cannot be gained in an equal proportion by any of the very best indoor arrangements. Contact with Mother Earth conveys away any superfluous bodily electricity that might otherwise make one "nervous."

Dress During Pregnancy.

THE DRESS of a pregnant woman should be light and comfortable. There must be absolutely no compression through the vital regions; none, in fact, anywhere on the body. It has been plentifully demonstrated that woman's dress may be *both* artistic and hygienic; that it may even follow lines of conventional suggestion and yet be healthful. But the pregnant woman has all the reasons for assuming flowing robes; she dare not, in justice to herself and babe, try to bind herself into the skin-tight bodice of the fashion-plate dress.

The union undergarment, the comfortable bust supporter, to which may be attached hose supporters and a skirt, are the only undergarments needed. The outside garment may be a pretty Empire dress, or a tea jacket with a skirt attached to the bust-supporter. The dress for street wear can be made with an Eton or Blazer jacket, and skirt built upon the gown

form. The form may be made adjustable as to darts, and trimmed in front of waist to correspond to a shirt-waist front; the fastening is in the back and concealed by the jacket. Any kind of desirable neckwear may be worn. There are several bust supporters on the market any of which may be secured for the cost of an ordinary corset. And the comfort and satisfaction from wearing them is many hundred per cent over the barbarous corset and conventional dress.

Neither deep breathing nor helpful exercise can be practiced unless the dress is such as not to restrict. Neither can the functions of the body be well performed unless dress is in harmony therewith. A writer on dress in the *Gentlewoman* says: "We are restless and feverish because we do not give our energies to the most important things, which a greater simplicity in material directions would allow us to do. Therefore to occupy our improperly neglected energies we continually make variety in unimportant matters.

"However, what if we become convinced that simplicity was, after all, the greatest beauty? As it is, have you never noticed that beautiful people, or people of impressive personality, as a rule wear no odds and ends—fripperies and multitudinous trimmings, danglings and janglings? The first, from some instinct that they need no enhancements; the second, because their attention is given to more momentous things that put at once all petty ones out of accord with their feelings, also their notice."

The idea of the article is to consider and separate the essentials from the non-essentials. Immaculate simplicity as to home or person appeals most for the respect of those whose respect is worth while.

Diet During Pregnancy.

DIET is very important in pregnancy. Its purity and wholesomeness are items of consequence at all times, but at this time such food as is heating to the blood, or rich in bone-forming material, should be avoided. For the former, eat of fruits plentifully. If this suggestion is observed, with others of hygienic value herein noted, there will be no danger of that scourge, child-bed fever. Select such fruits as are agreeable to the palate and eat freely of the same at the beginning of each meal.

The nausea, which is the horror of so many women, known as *morning sickness,* is often overcome by the fruit diet. A chief source of nausea is intercourse during pregnancy. If nausea persists, and intercourse is a habit, it should certainly be discontinued, though it may be said that morning sickness is one of the least of ills resulting from the marital practice of copulation during pregnancy.

Women inclined to obesity should particularly avoid eating too much. The old saying that a pregnant woman eats for two is done threadbare. It is true that another occupies her body with her; but when it is remembered that the average babe only weighs about seven pounds and has nine months in which to grow to that size, it will be seen that double eating is not necessary, even in the case of the thin woman. One does not want a large, fat baby so much as a healthy, well-formed one. Overeating will bring on digestive derangement in the majority of cases, and any disease must be guarded against. Eat only enough to satisfy hunger; do not force the appetite if not hungry, and *do* restrain any tendency to over-eating, which easily may be made a habit. Large babies are hard to be delivered of. It is often necessary to separate the parts of the child's body and bring it lifeless into the world,

to save its mother, which cases are due to the "eating for two" theory. Where the mother is stout, labor is usually difficult, and many times the tedious labor destroys the baby's life. These things are too serious to be the result of carelessness during pregnancy; the appetites should be restrained from unnatural development for sake of the babe's character-building as well as his physical good. Pre-natal influence shapes the future individual. All that education and environment can do after birth is to make the individual a good, bad or indifferent specimen of the *kind* decided by heredity and pre-natal influences.

There sometimes exist peculiar cravings for stimulants or condiments or certain articles of food, which may in a limited degree be gratified, else the mind dwelling often on the subject may imprint the craving on the child. Any woman who knows the first principles of hygiene knows that coffee, tea and alcoholics are not food; they are but stimulants to spur bodily or mental powers to greater exertion; when reaction comes exhaustion is much greater than otherwise. The habit of using stimulants for years undermines even a strong constitution, and when the weakness is felt it is attributed to advancing years instead of to bad habits.

Do not give too much consideration to what is to go into the stomach. It is good for neither mother nor babe. Fill the mind with wholesome, uplifting thoughts for others, and the child will reward you a thousandfold in his regard for others than self.

Bathing During Pregnancy.

BATHING is to be religiously observed at this time. In forming a body for the new being more secretions are thrown out of the system and need to be removed. The bath is a tonic, too, especially valuable.

There should be a sponge bath upon arising in the morning, having care that the temperature of the room is warm enough. Cold water is best; if the room is warm a good reaction comes on at once, in normal health, and the tonic effect is in the reaction.

During the last months there should be, in addition to the sponge, a sitz-bath daily. This consists in bathing the hips and abdomen only, sitting in any vessel of suitable size. The water at first may be tepid, and the temperature gradually lowered to about 60 degrees F. Any feverishness of that part of the body is allayed thereby. After remaining in the bath for five to fifteen minutes, dry the body and rub briskly with the hand for some minutes.

It is always well to arrange for this bath at a time when it is convenient to follow it with a sleep. Bathing naturally puts one on better terms with her conscience, and in the prospective mother creates a love of cleanliness in the child.

In connection with the sitz-bath it is recommended that oil of some kind be well rubbed into the abdomen. A correspondent of the *Journal of Medicine* says: "Use either sweet oil, cocoanut oil, vaseline, or the old-fashioned goose oil. This diminishes much of the feeling of tightness caused by the pressure, and prevents the formation of those *striæ* found upon the abdomen of most multipara, caused by atrophic condition of the skin layers and obliteration of the lymph spaces. By this treatment the skin is made so elastic, and the circulation through it so improved, these atrophic changes do not take place."

The same physician recommends that the *perineum,* the space between the anus and vaginal opening, partake of the treatment. "I also urge that the perineum be thoroughly oiled and stretched each day. Our patients derive a double

benefit from this care; the long delay of the head at the outlet is avoided and many times we are able to deliver a primipara of a large child, as was illustrated a few weeks ago by Mrs. A——. When she had called she said her mother and all her relatives had had a 'hard time.' I gave careful directions about the oil, and she was very thorough in its use. When she came to be confined I found a large child and a face presentation, and although labor was slow, there was not a nick in the perineum."

Lacerations of the perineum usually occur with the first-born, and pave the way for uterine displacements.

Hardly less important than the external bath is the internal bath, which consists of washing away the refuse from the colon, or large intestine. In a state of nature mankind does not bathe for health. Sometimes both sexes swim for love of movement and the glow it gives, while knowing nothing of advantages to health. Of course they know nothing of internal cleanliness.

The Internal Bath.

Civilized man has prepared plentifully, oftentimes elaborately, for bathing the external surface, but is inclined to consider as *un*natural the suggestion of regular internal cleansing. Taking an injection has been some years in common use to wash away refuse from the rectum, which is but the last end of the colon. For this just a little water is used. It does not overcome the tendency to constipation, and the full internal bath does.

We are not living near enough to the state of nature that the sewer system of the body can be ignored. Just as the waste pipes of the water system of a city should be flushed, cleansed and disinfected, those of the human system should be

treated. These cleanings can be administered by the bulb syringe, or better, by the fountain syringe. And there is a specially constructed syringe called the "Cascade," intended especially for cleansing the colon.

In pregnancy the bowels should never be allowed to become clogged. In addition to being a general bad condition, the colon packed with refuse matter may, by pressure on the uterus, cause other morbid symptoms.

Character in Embryo.

The social, intellectual and spiritual character of a human being may be molded in embryo by pre-natal influence. Dr. Holbrook says: "It is essential, therefore, if children are to be well-born, that parents should be careful that at the moment of procreation they are fitted for the performance of so serious an act." Passing the moment of conception, other molding influences begin, but if a child is already begotten by, say, a passive, submissive mother and a drunken, sensual father, a bad beginning is already made, which no good influences can wholly eradicate.

Any one who has seen shy, self-distrustful children may well conclude that the mother was one of those foolish ones who "went and hid herself" while in the family way. This conventional shyness is an injustice to the babe as well as to the mother. She should then as always mingle in the society of congenial friends for the cheering effect on both herself and the child. Alone too much, she will be prone to become morbid and think of self, and give to her babe a lonely, selfish disposition.

The business of housewifery isolates one more or less from the world of general activity. Treading too exclusively in one

way causes a groove or rut to form, which may, after a time, get too deep to see over. Isolation has a tendency to cause unhealthy mental and spiritual conditions; to make one's view of life narrow to the four walls of home.

Good books and periodicals largely overcome this tendency, but to maintain truly human feeling it is necessary to rub elbows with others of our species.

Pregnancy is a natural and beautiful condition. Of itself it is no reason for retiring from active participation in social life. Sensible folk do not regard it as a cause for shrinking and shyness.

Love your babe and its father. But this is superfluous advice to those who have "desired, designed and loved" a babe into being. The babe is love's precious fruitage. As Mrs. Lowell says:

"In her was mirrored forth
The love we could not say,
As on the little dew-drops round
Shines back the heart of day."

Pre-Natal Influences.

AMONG the social faculties none is stronger than the attraction between the sexes. To be sure that a child will consider this attraction from a clean, true standpoint, all thoughts and imaginings must be pure. And husband and wife, as they value uprightness of character in their future child, must avoid sexual excitement; the father because he loves both mother and baby; the mother because a precious charge is in her keeping.

Following are quotations from different authors on the subject:

"Every time a husband excites in his wife the sexual pas-

sion, he robs his child of some portion of its vitality and her of some of the strength she needs."—Dr. Nicholls.

"Caresses must be controlled; they must not be permitted to arouse strong personal feelings; their (the parents') thoughts should rather be upon their child than upon each other. Above all, the generative act should be avoided. To this end husband and wife should occupy separate rooms, or at least separate beds."—Dr. S. B. Elliott.

"Copulation after conception is more unnatural, more brutalizing, both to parents and child, than all other habits and causes combined."—Dr. M. R. Melendy.

All bursts of passion, anger, rebellion, jealousy and the like must be controlled, as being doubly bad in effect. The babe in the womb is affected, and the mother by the rebound. "A thought for good or evil reaches its destination upon wings, and, having performed its mission to others, returns to us by the same swift course."—*Coming Age.*

"To strive to forget enemies, or to throw out to them only friendly thought, is as much an act of self-protection as to ward off a physical blow. The persistent thought of friendliness turns aside ill will and renders it harmless. The injunction of Christ to do good to your enemies is founded on natural law. It is that the thought or element of good will carries the greater power, and will always turn aside and prevent injury from the thought of ill will.

"Demand forgetfulness when it is only possible for you to think of a person or thing with the pain that comes of grief, anger or any disturbing cause. Demand is a state of mind which sets in motion forces to bring you the result desired. Demand is the scientific basis of prayer."—Prentice Mulford.

CHEERFULNESS, happiness, must be the predominating ele-

ment. To be happy and make others happy is the highest duty and privilege of life. Our loved Louis Stevenson wrote:

"If I have faltered more or less
In my great task of happiness;
If I have moved among my race,
And shown no glorious morning face;
If beams from happy human eyes
Have moved me not; if morning skies,
Books, and my food, and summer rain
Knocked on my sullen heart in vain,
Lord, thy most pointed pleasure take
And stab my spirit broad awake."

The "task of happiness" belongs to all human beings, but to the mother prospective in especial. And this, like all good things, must find its germ within and grow and grow until outside influences can not depress or extinguish.

A NATURAL trend toward intellectual pursuit may be bequeathed by general reading and study of the best literature within the grasp of the mother's mentality. Any particular phase of work having been decided upon for the child will, by maternal cultivation, be impressed upon her babe.

EQUILIBRIUM should be sought in all usefulness and industry. A character one-sided, too highly cultivated in some faculties and not at all in others, is one not easy to pilot through the world of activity. "The individual grown to fullest estate is the one most alive to associations which bring other lives into his own."

Don't try to make your unborn child so much of a genius in one thing that he will be withdrawn from his fellow-creatures.

The Physical Signs of Pregnancy.

THE PHYSICAL signs of pregnancy in normal health are: First, the cessation of the menses.

Enlargement of the breasts begins in about six or eight weeks after conception. There is usually a noticeable sensation of tingling and throbbing, and the enlargement is distinguishable from a fatty increase by being hard and knotty; the lobules of the glands may be felt beneath the skin, arranged regularly around the nipple.

The areolar tissue surrounding the nipple gradually darkens after conception. In the unimpregnated state this tissue is pinkish; as pregnancy progresses the shade grows darker and the circle increases in size. However, where one pregnancy quickly follows another the dark color becomes permanent and is not an indication. Pathological symptoms are always more or less present in these cases, and women quickly discover their condition by illnesses which come therewith.

Quickening, or the first conspicuous movements of the babe, is noticeable from the fourth month to the fifth. The uterus then rises out of the pelvis, and the movements of the babe pressing against the sensitive abdominal contents are sensible to the mother.

Enlargement of the abdomen begins about the second month, when the uterus elevates the intestines. At the fourth month it rises out of the pelvis in the form of a hard round tumor, and then gradually enlarges the whole abdomen. It reaches the navel at the sixth month and the region of the diaphragm at the ninth.

The Disorders of Pregnancy.

THE DISORDERS of pregnancy are numerous in proportion to the state of health and manner of living. Morning sickness is often prolonged and aggravating; it is most common in the

nervous temperament, or in those whose life has been such as to create nervousness. This can be overcome along with many other unpleasant symptoms by rational living. Eat of some fruit that best agrees with palate or stomach, drink hot water, or eat nothing until a real hunger demands. Where nausea occurs after eating, a tart apple or orange is good. Mrs. Duffy recommends the following:

"Let women suffering from morning sickness try acid fruit —apples, oranges, or even lemons, if their sourness is not unpleasant. If a single orange or apple after each meal does not suffice let them try two; let them eat ten if that number is necessary to conquer the distress. The principle is a correct one and the relief certain. Let fruit be eaten at all hours of the day—before meals and after, on going to bed at night and upon getting up in the morning. If berries are in season let them be eaten in the natural state—that is, without sugar. If the sickness still continues omit a meal now and then, and substitute fruit in its stead. By persistence in this course, not only will nausea be conquered, but an easy confinement guaranteed."

Nervousness,sleeplessness, hysteria are due to want of fresh air and outdoor exercise, or to allowing the mind to dwell upon abnormal symptoms, to listen, as it were, for every possible unpleasant condition. Keep mind and body pleasantly occupied, and these conditions can not exist.

Constipation, diarrhea, or any of the disorders of the intestinal region, will not be of any dangerous duration when the internal bath is used.

Heartburn, acidity of the stomach, colic, waterbrash occur when improper diet is used or too much is eaten. Drinking

hot water before meals is good when the cause is not repeated. Fasting is also a good remedy.

Dizziness, headache, neuralgia are no more liable to occur in pregnancy than at any other time in normal health. The fruit diet is a preventive of that thickness of the blood which causes dizziness. Headache due to biliousness may be overcome by cleansing the digestive tract and eating lightly for some days after.

Neuralgia is most quickly relieved by bringing the blood to the surface. An internal bath, with a vapor or hot air bath, will almost surely bring relief from neuralgia.

The duration of pregnancy is about forty weeks. When the date of conception is known the reckoning is from that time; when not, the calculation may be from the time of the last monthly period. If this can not be remembered, four months and a half from the time of quickening must be made use of.

PART II.

CHAPTER V.

Child-Birth.

THE earliest symptom that the time of parturition is near is the descent of the child into the pelvis, when it has before been near the diaphragm. A positive feeling of relief is experienced, because of the increased breathing capacity. This state may exist for several days previous to labor—though often it is of only a few hours' duration. A slight discharge of mucus tinged with blood occurs, which indicates that the uterus is getting ready for the discharge of its contents; this is called "the show" by doctors and midwives; *os uteri* is becoming unsealed.

When these indications occur the lady should lose no time in having the chamber in which she expects to be confined arranged. The most light and airy room in the house should, when possible, be made the lying-in room. Good ventilation and light are imperative in sickness. The bed should be strong and firm to preclude the possibility of being jarred by a tumbling down. The mattress may be of any of the good makes and protected by a folded comfort, over which is spread two yards of rubber cloth. Over the rubber or oilcloth may be spread whatever else is desired to make the bed comfortable. The doctor will expect to be seated so that the right hand may be used to assist the patient when necessary.

The nurse and physician should be informed at the time they are engaged as to when their services will be required, that their other engagements may not cover it.

The doctor, nurse and a lady friend are all that will be needed at the time of parturition. If the labor is not tedious even their services will not be required for long.

The child's clothing and that of the mother should be ready for the moment they are needed.

The babe's dresses may be such as the mother's taste may provide, with the precaution that the skirts be not long. The average babe at birth is about eighteen inches in length. Skirts for the new-born should not be made longer than twenty to twenty-four inches from neck to hem. The weight of long skirts is a hindrance to growth. With skirts of the length mentioned no shortening process is needed; the babe grows through them. If the yokes and waists are not too snug the only change required in the first dresses is an extension on the sleeves.

As soon as labor is known to have commenced the nurse and physician should be notified. At the same time prepare an abundance of hot water. As often as every ten or fifteen minutes drink hot water, or weak hot tea. Get the sitz-bath ready as the pains come on. If the bowels have not been moved recently cleanse the colon as thoroughly as possible. Then sit down in the bath; increase the temperature of the water as it cools. Remain in it as long as possible without fatigue.

A Soothing Bath.

This bath is wonderfully soothing. Parturient women, even in labor of long duration, have expressed themselves as delighted at the soothing effect of the sitz-bath. Usually

there is the desire to lie down and rest after sitting in the hot water. The body is made dry and the patient goes to sleep. The bath may be repeated once, sometimes two or three times, with the same good results. With the sitz-bath and drinking warm infusions the system is relaxed and labor is comparatively easy.

One lady gives her experience as follows: "I was awakened from a sound sleep by a premonitory labor pain. Arousing my husband, I had him call the nurse, who was in the house in anticipation of the event. A sitz-bath was made ready as soon as possible. After sitting therein for some time I became aware that I must leave for the bed. I had scarcely been assisted to dry my body and get to the bed, when a lusty boy baby was ushered into the world. All of conscious labor was over in an hour and a half with very little pain to me. I must add, however, that I had through the whole nine months lived as thoroughly a hygienic life as I possibly could."

Taking the sitz-bath and partaking of warm drinks requires more effort on the part of a woman in labor than lying in bed being anesthetized by chloroform or ether, but she will have a quicker recovery and without any of the drawbacks with which narcotics leave one. The hot water relaxes the muscles; the anesthetic merely deadens the sensibilities. In one case labor is really made easier; in the other it is not.

The Three Stages of Labor.

Labor has been divided into three stages. In the first the uterus alone contracts, and the mouth dilates. In the second stage the abdominal muscles assist the uterus in expelling the child. In the third stage the placenta and membranes are expelled.

Dr. Nicholls says:

"Child-birth is a natural process, and however painful or complicated or dangerous it may be made by disease, still nature must do her work. Our efforts to assist nature, to expedite her operations, or to take her own work out of her hands, generally end in mischief. The only cases in which we are justified in interfering is where her powers are exhausted, or some malformation or malpresentation renders all her efforts unavailing. These are rare accidents and always the result of disease; how rare even amid the vices of civilization is shown by the following statistics:

"Of twelve thousand six hundred and five (12,605) deliveries at the Maternity Hospital in Paris, only one hundred and seventy-eight (178) required assistance, and instruments were used only in thirty-seven (37) cases. Yet we have fashionable doctors who give ergot and use the forceps in a large proportion of the cases to which they are called. The consequences are prostration, hemorrhage, prolapsus and long-continued uterine and general disease."

A remark very common among semi-invalid women is: "I have never been real strong since my first baby was born."

Continuing, Dr. Nicholls says: "One who is to be a bride and who hopes to be a mother should observe all the conditions of health; and if suffering from any disease, or in the practice of any diseasing habit, she must lose no time in seeking reformation and cure. Let her be calm, happy, temperate. Let her guard against amative excess; especially in the honeymoon does love run into absorption and exhaustion. Permanent happiness is sacrificed to a few days of delirious and not very satisfactory enjoyment. The tone of the uterine system is relaxed by this excess; the germ is weakened; the spermatic fluid is exhausted of its vital qualities, and the result

is a sickly, nervous pregnancy, a protracted and painful parturition and a sickly, short-lived infant.

Child-Birth Not Necessarily Painful.

"No natural process is painful. We might as well suppose that it would be painful to swallow with a healthy pharynx, or to digest with a healthy stomach, as to expel the child with a healthy uterus. All the pain and difficulty and danger of child-birth is the result of disease."

Everything needed for the care of mother and babe should be at hand when delivery is over. The clean garments for both, plenty of soft cloths, sweet oil, soap, towels, arnica, safety pins, etc. There should also be a large square of soft flannel to wrap the child in as soon as born.

Avoid having as nurse or friend at this time one who is not cheerful and pleasant. The morbid, unhappy person depresses even those who have not such important business at hand. Some women enjoy pleasant conversation during labor, others prefer quiet. The wishes of the one so vitally concerned should be observed.

The New-Born Babe.

When the babe is born it must be laid at once where the uterine discharges will not endanger its life. After wiping the mucus from the mouth and face and seeing that respiration is established, the child is folded into the soft warm flannel prepared for the purpose and laid to one side until the pulsation in the cord has ceased, which is in from ten to thirty minutes. Then the umbilical cord is tied and severed, or the navel dressed without tying, according to the opinion of the attending physician. Opinions vary as to tying the

cord; but as to severing before pulsation has ceased, the best authorities are agreed that it should not be done.

In the quick, natural labor the appetite does not demand any food. Where it is prolonged there is sometimes a feeling of faintness that craves something to satisfy it. Heavy food should not be given. A bowl of gruel, a glass of hot milk and water, a light soup or piece of toast will be ample. Nature is at that time using her forces otherwise, and cannot give much to digestion.

If there is any tendency to flooding, the mother should lie flat upon the back, with the head lowered. As soon as pulsation has ceased in the umbilical cord, with a sharp pair of blunt-pointed scissors the doctor severs it, and either dresses the navel himself or passes the child to the nurse to be attended.

The most advanced practitioners do not allow the child to be washed with soap and water at first. Instead, sweet oil, lard, vaseline or unsalted butter is used, and the secretions wiped away with soft cloths. There should not be much attempt at dressing at first; the navel dressing, a little shirt and diaper and a night dress will suffice.

Better yet is to follow the example reported as follows: "After birth the child got no bath, no food, no dressing process, but was simply swathed in cotton batting and laid for six hours in a padded box-bed, surrounded by bottles of hot water, and covered with plenty of soft blankets to sleep and get used to his new environment. On the second day we began rubbing him daily from head to foot with vaseline. His first bath, with a flannel cloth dipped in warm milk diluted with soft water and without soap, came when he was a week old, and was followed by a thorough vaseline rub.

"Feeding began with a meal every hour of the twenty-four for the first week. Then night feeding was reduced to two

meals, and he was fed every two hours—from four or five o'clock in the morning till nine at night—until two months old."—Dr. Holbrook, in "Homo-Culture."

The Afterbirth.

In natural labor, from a few minutes to an hour elapses before the afterbirth and membranes are expelled. Neither the doctor nor midwife should pull at the cord. If the uterus is not ready to expel the placenta, a pull may displace the organ and some permanent injury be done the woman. A forcible pulling on the cord has been known to turn the uterus wrong side out.

After the afterbirth is expelled the conscientious physician will examine to see if it has been entirely passed away. If not, more clots may be expected.

If it takes longer than an hour for the afterbirth to be expelled, the patient should not be allowed to worry. Perhaps nature is resting before making another expulsive effort. The eminent authority, Playfair, says: "There is no place where there is so much malpractice as at the bed of labor, and in the detachment of the afterbirth." Both husband and wife should hesitate a long time before consenting to extraneous removal of the afterbirth. It does not adhere to the womb. For absorption of nourishment and aeration of the fetal blood, it is attached to the mucous lining of the uterus; but in just the way that the babe is born when the time is ripe, so the placenta peels away from the uterus as an orange is peeled away from the rind.

Those practitioners who sever the cord too soon are the ones who have had cases of retained placenta. The premature operation interferes with the natural expulsion of the afterbirth. Obey the laws of nature and all is well.

Dr. Curtis, in "Midwifery," says: "Never fear to wait for the efforts of nature, aided only by innocent means and processes, to disengage the placenta. Many instances have occurred in which it has remained not only for hours, but for days, and then came away without danger or inconvenience to the patient."

There are so many ways by which a woman may save herself a painful, tedious delivery through care beforehand; the wonder is that any will be recklessly careless as to the rules of health when it may mean their own or their child's life.

When the placenta has been expelled the patient may, if not too exhausted, be made tidy and comfortable and left to rest. The afterbirth should be burned or buried.

The vagina should be irrigated with warm water in which there is a little carbolic acid; and when the parts have been cleaned and dried, a napkin wet in a lotion of arnica (twenty drops of arnica tincture to a glass of water) should be placed against the vulva.

When the after-pains are severe a napkin wet with the arnica lotion as warm as may be borne may be applied to the abdomen, with a warm, dry flannel to cover it and prevent the bedding and bed-gown from becoming damp. These after-pains are but the contractions of an empty uterus, which must return to the normal, unimpregnated size.

For several days after delivery there is a discharge called the *lochia*. The more natural the delivery, the lighter the discharge.

The napkins against the vulva should be changed every three or four hours during the first two days of convalescence. If the soreness continues the arnica lotion should be used each time.

The vagina should be cleaned morning and evening of every

day of confinement in bed. Every morning the lady should receive a bath and clean garments, and the sheets of her bed be changed. If they are not soiled by the discharges, a thorough sunning and airing will disinfect them sufficiently for another day's wearing. As soon as strength has amply returned, she should be helped into a bath at the bedside, having care that the room is sufficiently heated to prevent chill. The full bath soothes and cleanses better than any that can be given lying abed, and it aids recovery more. The third or fourth day is the average time for waiting for this bath.

The bowels and bladder are often in a state of semi-paralysis after labor. The attending physician will notice those functions. If there is no action within thirty-six or forty-eight hours following labor attention must be given them. A full internal bath will ordinarily cure even obstinate cases of retention. Water, filling the large intestine, is more or less absorbed and passed off through the kidneys, washing that excretory channel as well as that of the colon.

The Convalescent Mother.

The diet for a convalescent woman may be almost anything for which she has a liking, with the care not to overeat.

The babe should be placed to the maternal bosom every hour of its waking moments for the first week. The estimated capacity of the stomach of a new-born child is a thimbleful; so it can not make use of very much food until growth begins. Dr. Louis Starr says: "As the secretion of milk is never fully established until the third day after labor, it stands to reason that no food other than the colostrum (the first secretion of the mammary glands) is required before that time. Hence the practice of filling the infant's stomach with gruel, sugar and water and other sweetened mixtures is more than useless, for

it diminishes the activity of sucking, and the consequent stimulation of milk production.

Relative to the nervous sympathy between the uterus and mammary glands Dr. Keith says this: "I can not advise too strongly of the importance of having the child nurse at once. If the afterbirth has not come, nursing favors its coming. If there is flooding nursing apparently checks it. But the most important point is that the early milk is a physic and cleanses the child's bowels in a natural manner."

The bowels and bladder of the infant should act during the first twenty-four hours of separate life. The tarry material that collects in the intestinal canal during pre-natal life is called the *meconium*. The napkin of the child should be protected against this first passage, as it is not easily washed. An old piece of linen may be placed in the napkin, and, after the meconium has been passed, be burned.

The Babe's Food.

It is best not to allow any food to be given the child but its mother's milk, but if her health has suffered, and bodily functions are poorly performed, lactation may not be readily established. If, after the third day, the breasts do not give a plentiful supply of milk, the feeding may be supplemented with cow's milk. Be sure the cow is sound; diseased cattle often convey the malady through the milk. The milk should be diluted with double its quantity of water and sweetened slightly with sugar of milk. The artificial feeding may be done with a spoon. It should be discontinued whenever the mother's milk begins to flow.

Many mothers give up the effort of nursing their babes too soon. Perseverance is necessary when the child does not readily take the nipple. A little milk squeezed from the nipple into his

mouth will often cause him to seek its source. Dr. Starr says: "When giving the breast the infant must be held partly on its side, on the right or left arm, according to the gland about to be drawn, while the mother must bend her body forward so that the nipple may fall easily into the child's mouth, and steady the breast with the first and second finger of the disengaged hand placed above and below the nipple. In case the milk runs too freely, a condition very apt to excite vomiting, the flow is easily regulated by gentle pressure with the supporting fingers. Each of the breasts should be drawn alternately, the contents of one being usually sufficient for a meal; and a healthy child may be allowed to nurse until satisfied, when he will stop of his own accord."

Regularity in the feeding of infants is more important than when they are older. The functions of the delicate little body are easily disturbed. It is a very serious mistake to feed a babe every time it cries. When the meals have been regulated, and the diaper changed whenever necessary, if the babe cries it is due to some other cause, which should be discovered.

It is not desirable that a babe be fat, all former notions to the contrary notwithstanding. Mortality is always greatest among fat babies. If a child is plump, rosy and frolicsome he is well. Too much fat burdens the movements of babe or adult, and observation proves that all who are overstocked with fatty tissue have not the power to throw off disease.

PART II.

CHAPTER VI.

Hygiene of Infancy.

THE period of life known as infancy comprises about the first three years of separate existence, or until all of the milk-teeth have been cut.

The earliest infantile needs pertain, for the most part, to his physical well-being, although good discipline and good environment are of no small importance even while very young. Regularity in the care of a babe makes an early impression. The feeding, bath, and exercise, which should occur at stated hours, will be anticipated and called for, and this arrangement enables a mother to give a little time to herself and household, and not be in such constant attendance upon His Majesty the Baby.

The Baby's Bath.

THE DAILY BATH should occur either in the morning or evening. Most mothers prefer the mornings; but regularity is the most important item. A good time is between morning feedings.

Supposing the child has awakened at five o'clock a. m. demanding feed, and has been satisfied, he will naturally sleep again for two hours, during which time his mother will have been attending to morning duties of the house. When the second awakening occurs the bath and fresh garments will be ready.

Water for the bath should be pure and soft to prevent chafing the delicate skin. It is very convenient to have a low stand or stool upon which to rest the bath-pan, to enable the bather, while still sitting, to be on a level with her work. Some good soap made without potash or other irritating ingredients should be at hand, along with a soft flannel for a wash-cloth, and some soft towels.

The water should be about ninety-five degrees Fahrenheit in winter, and about ten degrees lower in summer. The bathing should take place in the part of the room least draughty, the room having been heated to a proper temperature beforehand. A crib-blanket may be used to wrap about the child while drying the body, a portion at a time being uncovered. Everything needed for dressing the youngster should be at hand; his change of clothing, powder, safety-pins and all.

In drying the baby, the flesh should be patted rather than rubbed. The natural folds of flesh where water may lodge require especial attention, or in a very short time excoriations will be seen. After drying, the whole body should be gently rubbed with the palm of the hand for about five minutes. This encourages a good reaction by quickening capillary circulation. The tonic effects of the bath are in the reaction. Weakly children thrive especially under this gentle manipulation. Do not dally with the bath.

Powdered rice is a very good form of powder to use over the body should the drying process not be perfect; but this is not essential if drying is well done.

Whenever the diaper needs changing, the thighs and groins should be washed, and dusted with the powder. Any neglect in this may cause chafing, which will make the babe fretful and unhappy.

What Baby's Crying Means.

Crying is the chief means by which the infant can make known any suffering, discomfort or displeasure. In the variations of the cry the mother may learn to diagnose the troublesome conditions.

"Incessant, unappeasable crying is usually due to earache or to hunger; it frequently, too, is caused by the pricking of a badly adjusted pin.

"If crying occur during an attack of coughing, it is an indication of some painful affection of the chest; if just before or after an evacuation of the bowels, of intestinal pain.

"When crying has a nasal tone it should suggest swelling of the lining membrane of the nose, or other obstructing condition. Thickening and indistinctness occur with throat affections.

"A loud, brazen cry is a precursor of spasmodic croup, and a faint, whispering cry of true or membranous croup. Hoarseness points to disease of the lining membrane of the larynx either catarrhal or syphilitic in nature.

"A manifest unwillingness to cry can be seen in pneumonia and pleurisy, when the disease is severe enough to interfere materially with breathing.

"Tear-secretion having been established, it is a bad omen if the secretion be arrested during the progress of an illness; but it is an equally good one if there be no suppression, or if there be a re-establishment after suppression."—Hygiene of the Nursery.

The Feeding of Infants.

THE FEEDING of babes is the most important need, if any one physical requirement can be singled out. All other organs of the body depend upon the digestive apparatus and the lungs.

To keep these systems in health means bodily health; to abuse them brings punishment to all the rest of the body. A babe's life and health is at the mercy of his care-takers; hence the importance of mothers and nurses informing themselves. Except in hereditary cases sickly and diseased children are a reproach to their parents. The means for learning much of the proper care of children are to be found on every hand, so that entire ignorance is inexcusable. But there are a great many who do not know that they are ignorant; who believe truly, when their babes are taken sick and die, that a dispensation of Providence has overtaken them. Perhaps it is just as well for the world. The fool has been the problem of the ages, and the less the species is reproduced and raised to maturity, the better.

Few women have ever any previous preparation for motherhood. As Mrs. Stetson says, "They are fitted to attract the other sex for economic uses, or, at most, for mutual gratification, but not for motherhood. They are reared in unbroken ignorance of their supposed principal duties, knowing nothing of these duties till they enter upon them.

"This is as though all men were to be soldiers, with the fate of nations in their hands, and no man told or taught a word of war or military service until he entered the battle-field.

"The education of young women has no department of maternity. It is considered indelicate to give this consecrated functionary any previous knowledge of her sacred duties. This most important and wonderful of human functions is left from age to age in the hands of absolutely untaught women. It is tacitly supposed to be fulfilled by the mysterious working of what we call 'the divine instinct of maternity.' Maternal instinct is a very respectable and useful instinct, common to most animals. It is 'divine' and 'holy' only as all the laws of nature are divine and holy."

All women who expect to be wives and mothers, in justice to themselves, must study what those relations mean and how best to acquit themselves when placed in those positions. To fully equip herself as a well-rounded human being will make her not only more valuable as a mother of the race, but as an individual character.

To return to infant feeding. When possible the mother's milk is the only food to be given. He should be given the breast every hour of the twenty-four for the first week; from that up to the sixth week, twice during the night and every two hours during the day. If put to bed at seven p. m. he will need to nurse about nine and eleven, leaving his mother from then till five a. m. undisturbed.

The natural feebleness of infantile functions makes regularity in feeding imperative. One hard and fast rule can not be made to apply in all cases. Some babes will need to be fed oftener than others; some less. The hours here given are approximately correct.

After the sixth week the interval between feedings may be increased until, by the fourth month, it reaches three hours; this interval is usually continued until weaning, which will occur at from nine to twelve months.

When the mother's milk is not sufficiently plentiful, artificial feeding may be used in connection with nursing, alternating with the breast. There is a considerable difference between cow's milk and human milk, and but few infants thrive when given pure cow's milk. There is, in ordinary cow's milk, about one-half the amount of sugar that is in breast milk; and the curd to be driven from human milk is only about one-fifth as much as can be obtained from the same quantity of cow's milk. To prevent too much curd in the stomach of the baby the milk is diluted with double its quantity of water; this re-

duces the amount of sugar and fat which is already too low. The feeding of diluted cow's milk causes the child to take a larger quantity to get nourishment enough, and the overcrowding often causes distension and feebleness, colic and other difficulties. To overcome the lack of sugar and fat the milk may be diluted as before, using one part milk and two parts water; add sweet cream equal to half the quantity of milk, and one teaspoonful of sugar of milk to four ounces of cream.

It is better to feed with a spoon. There is not then the anxiety of keeping nursing-bottles, nipples and tubes sterilized.

Weaning.

The time for weaning a babe must depend to a certain extent upon the health of the mother and the development of the babe. If the mother is strong and the babe hardy, nursing may be prolonged up to twelve months; rarely longer. To insure good health for herself and child, a mother should be reasonably free from heavy labor, avoiding both mental and physical fatigue. It is not necessary to give especial attention to her own diet beyond a wholesome supply of nourishing foods. If there is a scant secretion of milk she should drink freely of milk, or chocolate, or *bouillon*. Vice versa, if the flow is too copious she must drink sparingly of all liquids.

The easier way to wean a child is to begin about a month before he is expected to give up the breast by substituting a prepared food for one of the three-hour meals. The next day give the preparation alternately with the breast—and so on until the breast can be withheld entirely. When any reason exists for abrupt weaning it is done at once completely. This is harder for both child and mother, however.

It is a great mistake to take a child to the table and allow him to eat of whatever is placed thereupon, after weaning. His digestive powers must grow gradually to take heavy foods. While such may be given, and the child is not sickened thereby, it does not argue that it is digested and assimilated. If the digestive apparatus does not rebel at once, sooner or later overtaxing will tell. It should easily be seen by any one willing to think that food for an adult is not suitable for the stomach of an infant. Almost any place through the country districts one can see mothers carrying tiny babes to the table and giving them mashed potatoes, gravy, bread and butter, and even coffee and tea. They then are surprised and worried because bowel complaint ensues, especially during the teething period. The teething period should cause no worry. It will not, if methodical and judicious feeding has been the rule.

After weaning, or from the tenth to the fourteenth month, the child should have five meals daily; at seven a. m., half past ten a. m., two p. m., six p. m. and ten p. m. The first meal may be the milk mixture given before; the next a cupful of full cow's milk warmed; the third a soft boiled egg with stale bread-crumbs; the fourth the milk mixture; the last a cupful of warm cow's milk. The mid-day meal may be varied occasionally with broth of chicken, beef or mutton.

From the fourteenth to the eighteenth month the diet may be more substantial. For the first meal a cupful of bread and milk may be given; for the next a cracker, or bread and butter, with a cupful of milk; for the third a slice of bread, a cupful of broth, and some rice and milk pudding; the fourth bread and milk; the last a cupful of milk. This bill of fare may be varied by giving a soft boiled egg or a baked potato in place of something else.

If the child wishes to sleep over the hour for the last meal,

never awaken him to eat. Instead, give him a cup of milk when he first awakens in the morning; he should not have to go hungry until the regular breakfast hour.

The young mother in her inexperience is often sorely oppressed by giving heed to the many conflicting bits of advice that come to her as to raising her baby. The best way in which to fortify herself will be to obtain some reliable book and conscientiously carry out its injunctions. She then has one consistent guide. If her baby thrives she may know she is in the right.

The nursing mother as well as the pregnant woman should not have to experience sexual excitement. It robs either her or the babe, or both, of vitality, as well as bequeathing to the child, through the mother's milk, an abnormal sexual appetite. When young men and young women are properly prepared for marriage and parenthood they will know that that estate is higher than one of mere indulgence of the sex passion. Sex passion is abnormal when it cannot be controlled for the welfare of all to be considered.

How to Dress the Baby.

THE DRESS of a babe should always be plentifully warm. To keep a child warm from its birth doubles its chances of life. Too much dependence is usually placed on the heating of houses, most of which are superheated. A babe should be dressed for the most part in flannel, during winter. Authorities disagree as to whether or not flannel should be worn next the skin. It absorbs and retains moisture from the body.

The "Gertrude" baby garments, devised by Dr. Grosvenor of Chicago for his own baby daughter, are very simple and sensible. The first garment is in one piece from neck to hem; it slopes at the waist-line and flares at the skirt to give a proper

width. The seams in sleeves and princess are on the outside. Over this is a petticoat of all wool, without sleeves. It is cut the same way, only an inch wider and two inches longer. Any outside garment desirable may be worn. The beauty of this system is the saving in time and strength for mother and baby. Before getting the bath ready, one garment is slipped inside the other and made ready, so when baby is dried, and the diaper, socks and band are adjusted, he can be slipped into his regalia in no time. With one motion they can be drawn over the head, or up over the feet, and with face downward each garment is fastened with one or two buttons.

The band which used to be supposed to strengthen the abdominal wall, and not taken off for months, is gone. When the navel no longer needs dressing, which time varies from five to fifteen days, the close-fitting band should be removed. In its place now comes a knitted wool band that reaches from under the arms to the hips. This preserves a degree of warmth for the stomach, bowels, liver and lungs, necessary for health.

"Babyhood" gives the following directions for a crocheted baby-band: "Single zephyr in ridge stitch, that is, half stitch, in which going back and forth only the back half of the stitches in the lower row are picked up. Begin on a chain of fifty and crochet forty-eight ridges, or ninety-six rows. Join by a row of tight stitches, or by sewing. Finish off at bottom by a row of plain stitches topped by a picot-edging (five chains and a tight stitch back into the first)."

This band should be worn throughout the period of dentition; longer if there is delicacy of digestion. Little wool socks, and shoes as soon as creeping begins, should be worn the year around.

The points to be observed in clothing a baby are warmth, looseness and a uniform covering of the whole body.

One writer gives a description of what an infant's clothing formerly was. She says: "The old style of dressing a newborn baby consisted first—no matter how cold the weather—of a tiny sleeveless shirt made of the finest linen. Then came a band of muslin, double, which was wound around and around the child's body several times and pinned tight. Then came a straight piece of flannel gathered into a band of two thicknesses of muslin fully three-quarters of a yard long which was wound around the baby tight, 'to support its little back, you know.' It was then pinned every inch with a straight pin. The flannel was folded each side over baby's legs and the ends brought up and pinned to the band in front. You will wonder if it could kick. Over this horror was put a flannel skirt—this also with a long band. Over that went a cambric skirt tucked and ruffled and long enough to cover the flannel one. Last of all came the dress of the finest, thinnest lawn or cambric, more or less tucked and ruffled.

"Think of it! If every band went around but once there were eight or ten thick, stiff layers of muslin drawn tightly and pinned over the lower part of the chest, liver, stomach and all the vital organs, and over the upper chest, neck and arm but one layer of the sheerest fabric."

The end-of-the-century baby may well be thankful for having been called into existence no earlier.

The diaper, or napkin, should be abandoned as soon as the child is able to make known the demands of nature. This time varies according to the skill in training.

The style of night dress varies with the taste of the mother. It is made preferably of wool for winter and cotton or linen for summer. Some mothers use a plain little night robe; a very serviceable garment for a young baby is a long gown with a draw-string at the bottom, to prevent the little feet

from kicking free from cover. When the babe is older, drawers made with waist, sleeves and stockings are to be recommended, as furnishing a uniform covering for the body, and for freedom of movement.

No clothing for either night or day should restrict free movement. The growing baby must be able to make all voluntary and involuntary movements with perfect freedom. If the shoes are tight the circulation of blood is imperfect; anything tight about the chest or waist prevents perfect respiration and digestion. Development is retarded whenever these precautions are disregarded. Clothing worn during the day should be changed upon getting ready for bed. The band and napkin must be replaced by clean ones before the bed-gown is put on. The day clothing must be placed where it can air all night, if it is expected to be worn the next day. The same should be done with the night clothing after the babe is dressed in the morning. Not infrequently do housewives put the night clothing under the pillow when making the bed.

The Baby's Sleep.

THE HOURS FOR SLEEP are regulated with the same precision as the meals, usually, although the infant depends upon mother or nurse to be fed, and can go to sleep of his own accord. New-born babes spend all the time aside from feeding and dressing in sleep. As the senses unfold a little more, waking time occurs each day, until at the age of a year and a half he will sleep about fourteen out of the twenty-four hours, and about eleven hours at three years.

The regularity consists in getting him ready for bed at a given hour every night, and once or twice during the day, according to the age. After the fourth or fifth year few children will sleep during the day; but at night they should retire not later than eight o'clock.

Most mothers will prefer putting their own babies to bed; it is such a good time for cultivating confidences, especially after conversation becomes possible. One never more realizes the feeling of nearness, "the flesh of my flesh, and dear of my heart" consciousness. She who delegates this hour to a hireling misses one of the precious heritages of motherhood.

No child of any age should sleep with an adult, or with another child. A babe may be placed in a crib by the side of its mother's bed where she can easily attend to its needs.

If the babe is fed and put to bed at seven in the evening, at nine and at eleven it will need to be fed again. At which times the mother should see if the napkin needs changing, and in returning it to the crib its position should be changed. Damp napkins can be prevented by holding the child out at feeding time. Both child and mother should have unbroken rest from eleven p. m. until morning. The bed should consist of a mattress covered with a rubber cloth upon which is a pad the length and breadth of the mattress. Crib sheets and blankets form the covering, and a very small pillow supports the head and neck.

Feathers are objectionable because the body, sinking among them, is kept too warm, which weakens the system and makes it susceptible to cold.

Care should be observed about not covering the nose and mouth. It will be better to have a fire in the room with light bed-covering than to oppress the body with weighty covers. If the little one is restless, it is a good plan to secure the blankets in several places with stout safety pins such as are used in blanketing horses, to prevent its becoming uncovered and getting chilled. If the child comes in winter, hot water bottles are good to place about the little body to preserve its heat.

As soon as the child is taken up in the morning the bedding

should be placed separately in the direct sunlight and air and not be made up for an hour or longer. The great disadvantage of having a bed in the living-room is the inability to expose it for any length of time to the sunshine and air before making it up; especially so in cold weather. Whenever possible the bed-rooms should be separate from the living-rooms, and the windows never closed except against a storm.

The baby's crib-bed being left to air in the bed-room, for day-time use the padded box-bed is serviceable. Take a box of good dimensions, pad it well inside and cover the outside with a pretty cretonne; place baby's pillow and blanket therein, and there is as safe and comfortable a bed as can be found. If the mother must be chief domestic as well as nurse, the box-bed may be mounted on casters, and drawn to whatever part of the house requires mother's presence.

Crying Babies Unnatural.

Never dose an infant with drugs, soothing syrups and the like. Crying babies are unnatural. If baby cries there is something wrong; unless the *training* is wrong and he is crying to have his own way. In neither instance should drugging be resorted to. Discover the cause and correct it. Trying to overcome an *effect* by administering medicine brings on a worse disorder as the effect of the medicine.

Dr. William Hall says: "A very common practice is to give something to stop the baby from crying; then when diarrhea follows, to give something to stop the diarrhea; and so it does; it keeps the infant from crying, it cures diarrhea; it is infallible in summer complaints; but sooner or later, or within a few days, inflammation of the brain comes on, and the child dies; the mother does not note the connection. When the child does not die it will grow up puny in body or mind. One

mother who said she never went visiting without her bottle of soothing syrup raised her baby. But the child could never continue in school for headaches; hence was not fully equipped for adult life, through lack of education.

Exercise and Air.

Exercise for a little child should begin about the third or fourth day after birth, when it may be carried gently in the nurse's arms for ten minutes, two or three times daily. After the first month, if the weather is warm, it should be carried out of doors as often daily, using an extra wrap and cap to protect the child; except, of course, stormy days. It may then be carried to a distant part of the house where good ventilation is possible. The nurse should walk slowly and evenly. to prevent any sudden jars to the delicate organism. Jolting, jarring, noise, if a part of the earliest environment of a babe, surely start it on the road to viciousness. When there is no pain to attend nor want to satisfy the babe should be quiet and happy. If these are ignored and the infantile mind diverted by jolts, jarring, singing, his temper becomes soured and his disposition biased for ill.

The babe should not be held in an upright position for any length of time. Ordinarily the child will not be able to support its own head and back until the sixth to the eighth month. The muscles of the back which hold the spine in position should be thoroughly strengthened by growth and development before the babe is encouraged to sit alone. Nature's work cannot, with impunity, be hastened, no more in infancy than before or during birth. Curvature of the spine results from muscles of the back being used before there is proper strength. When weak the weight of the trunk pulls the spine forward; then the chest movements are hindered, the blood imperfectly

aerated, and the child becomes an incurable weakling, or deformed.

As soon as a child begins to know the joys of activity, he should be laid upon a mattress or sofa, guarding him so he cannot fall, and be allowed to exercise in his own way. He will kick his legs, wave his arms, crow and show all the points of a healthy animal. All these movements serve to strengthen; even the crowing and "ah-goo" of articulation strengthen the voice-box. Exercise is one of the essential conditions of growth. Healthy life demands activity. As the child grows older he should not be persuaded into any attempts at physical exertion; when there is strength of body and mind enough to control the muscular action, attempts will be made of his own accord. He must be given time to work out the solutions to his own problems if he be hardy for so doing.

After a baby is four months of age, a carriage may be used to take him out daily. Up to this time the arms are preferable, especially in cold weather, the heat from the body of mother or nurse warming the child. The weight should be changed from arm to arm occasionally during an airing. If the weather is cold when the carriage is assumed, a hot-water bottle should be placed to the feet. The body of the carriage should be made comfortable with one or more pillows, upon which the baby is laid, and covered cozily. The sun-shade should always be ready to screen the eyes from any trying light. Care should be used in traveling over rough places in the street, to prevent jars.

When the child begins to creep the proper place for such exercise is perplexing to find. A baby-tender, which is a kind of low fence of given dimensions, and hinges together, is useful. If the weather is cold, and the floor more or less draughty, the space enclosed may be made comfortable by one

or two comforts so laid as to line baby's "yard." Or a large box, suitable for plenty of movement, may be padded and placed on casters for use of the creeper; if it is slatted part of the way up, say the top half of its height, the little hands will try to assist to the standing posture, and thus gain strength for walking.

After the power to walk is developed the open-air exercise may, once during the day, be taken on foot, carefully protecting the feet and legs before going out if the weather is chilly or damp.

The Child's Spiritual Development.

After all the physical wants have been properly attended, another need, just as important, at the same time must be supplied: it is an environment of love. Physical comforts are essential to bodily growth and development; love is required for spiritual development—for the true internal growth of individuality. Love is spiritual sunshine.

Little ones early reflect surrounding conditions. Living in an atmosphere of harmony, they will develop naturally and without the abrupt streaks of anger and cruelty which too frequently make themselves manifest. Home life being inharmonious, the budding character is warped in accordance therewith.

Father and mother should be playmates and comrades, rather than superior beings or rulers of whom a child stands in awe.

In learning the language of the household, simplicity must be the rule to conform with the thoughts of the infant. A profusion of words is objectionable; they confuse rather than conform to the child ideals. "Language that lies beyond the comprehension of the child finds no thought or germs of

thought with which to unite in the child's mind, and thus retards mental development by loading the mind with incongruous elements, with food that can not be digested or assimilated—placing the brain in the condition of an infant's stomach loaded with dainties and rich food; the stomach may be full, but it can not save the child from starvation. Thus, if a child—say nine months old—is thirsty, the words, 'Must its mamma div her pets a little dink?' are, perhaps, not a whit more injurious than 'Does mother's little darling want a drink?' Both make false impressions or none at all to correspond with the child's mental condition, unless it be the word 'drink' in the second form. But the words 'Baby—drink' will correspond so nearly with the simple forms of the child's thoughts and feelings, that, in connection with suitable actions on the part of the mother, they will go far towards liberating these thoughts and bringing them to clearer consciousness."—Law of Childhood.

Molding Mind and Character.

As the body must build its structures out of the food material given it, so must the character and mind of the child be made out of the every-day influences of its life. He speaks the language, thinks the thoughts, copies the acts of those by whom he is surrounded, as soon as the mind sufficiently unfolds. If he hears nothing but kind, loving words, he will be kind. If he hears no slang at home, what is heard outside will make little impression; so with profane and impure language. The personality of the child is the total of all the tendencies, good or bad, rough or gentle, which he has inherited, and all of the images which he has received since birth, every second of his life. The child is then worth whatever he gets from mother and father, as developed or controlled by education.

Let him live in an atmosphere of strife and selfishness where might makes right, where the weak must yield to the strong, unjust though it may be, where the father of the family ruthlessly disregards the wants of mother and children, while the mother goes about as a thief in her own house, stealing what is her own to feed and clothe herself and children, and very soon the child will grow to feel that his desires can be gotten by force or strategy. He loses that straightforwardness which characterizes honesty, and through no fault of his own.

Says Mr. B. O. Flower in the *Coming Age:* "Look to the little ones. Spend every moment you can with them; teach them unselfishness, gentleness, and loyalty to truth. Educate their minds and their souls. This, O parents, is your first and greatest duty. The children demand it; they have come at your bidding, they are your guests and your offspring, and they are in the dark; you must lead them to the sun-bathed highways of goodness and knowledge.

"The future also demands it. You have no right to call forth lives which, through your neglect, indifference and careless ignorance, shall curse the civilization of tomorrow, or heap sin and sorrow on society, already groaning beneath its load of woe."

Severe measures in the training of little folks generally lack coolness and wisdom. Parents, too often, consult their own comfort and convenience rather than benefits to the child. This is especially true when the child arrives at the age of three or four years; when, as some people are wont to say, it can look out for itself. Because the little brain can not comprehend what is said to it, the child is punished often with blows. When fits of anger come to him as the result of contact with an atmosphere charged with parental unbalance, more harshness is administered to quell the disturbed equilibrium.

But terrorizing the little one does no real good. The superior force may quiet the tempest temporarily, but it will burst forth at another time. To efface wrong in a child it must first be effaced in the elders.

A keynote of happiness should be sounded for the day by father and mother, and the smaller ones will attune themselves to it. Home is the place where all should cultivate cheerfulness as a duty. It is the haven of rest and development for all its inmates, and mainly depends for its integrity upon the two who founded it—the father and mother.

PART II.

CHAPTER VII.

Development from Birth to Puberty.

INFANTS born at full time vary in length and weight from the twelve or fourteen pound baby to the tiny doll-like creature of one and a half to two pounds. The average weight is about seven pounds, and the average length about eighteen inches. Large infants have heretofore been considered the more hardy, but observation proves that the babe who is merely round and plump, and *not* fat, is healthiest. Mothers can, during gestation, regulate the size of offspring at birth, by attention to exercise and diet. A small child that is healthy will make the journey to the external world with less pain to his mother and danger to himself than a large one.

During the first week of life the child may lose a few ounces as the result of a changed environment, but this should be recovered at the end of ten days, and the weight thereafter steadily increase. The subjoined table will indicate the approximate growth from one month to one year of age:

Age.	*Length.*	*Weight.*
Birth	18 inches	7 pounds
1 month	20 inches	8 pounds
2 months	21 inches	9½ pounds
3 months	22 inches	11 pounds
4 months	23 inches	12½ pounds

Age.	*Length.*	*Weight.*
5 months	23½ inches	14 pounds
6 months	24 inches	15 pounds
7 months	24½ inches	16 pounds
8 months	25 inches	17 pounds
9 months	25½ inches	18 pounds
10 months	26 inches	19 pounds
11 months	26½ inches	20 pounds
12 months	27 inches	21 pounds

Primarily the head and secondarily the body are large when compared with the arms and legs, but the disproportion is overcome in normal development. Length increases more rapidly during the first month than at any time thereafter.

All babies are born with blue eyes; if there is to be a change in color it is noticeable at about the third month. At birth the sense of sight is very imperfect; the child distinguishes only between light and shade. It has frequently been observed that, when a night-light has been used in the lying-in room, after it is no longer needed the baby would cry for it as being preferable to the dark. These instances occur, however, when no regularity is observed as to baby's habits.

From the sixth week to the second month the new world unfolding to the blank mind may be noticed in the discovery of his own fists. The recognition of objects by sight is evident about the sixth month.

For a variable period after birth hearing is not aroused. Taste and touch are present at birth.

The Child Mind's First Impression.

"The first impression on the mind of the child should be made by means of contact with the mother. The little aimless hand, blindly groping in its new environment, should touch the mother's flesh, and the velvety cheek should come in contact

with nothing less than the mother's breast," says Dr. Melendy. "The sense of touch inevitably communicates its delight to its four companion senses, and in a short time excites them to activity.

"In the marvelous laboratory of the mother's system has been prepared milk, sweet, sapid and nutritious, which awakens into its delight the sense of taste. By a delightful affecting of the senses is thus laid in the mind of the babe the foundation for every future idea of sympathy and beauty."

It has often been noticed that new-born infants have a dread of being left without support. This is probably due to the changed sensation after birth. While within the uterus, there is pressure on all sides, the absence of which is sensible to the infant at birth. It will cling tenaciously to anything within reach. Much restlessness and fretfulness could be overcome in newly arrived babies by firmly supporting the body on all sides with pillows and blankets.

When the new baby is first washed it will be seen that its skin is covered with down, the fineness of which varies much in different children; sometimes it can hardly be seen, while in others it gives a furry appearance to the babe.

Usually both bowels and kidneys will act during the first twenty-four hours; after that the bowels will be moved twice or three times daily and the bladder will be emptied five or six times daily.

The umbilical cord will become detached usually on the fifth day.

Mental and Physical Development.

Unfolding of intelligence and the development of physical powers keep pace, the brain guiding the activities of the body. This is, however, not true when mothers try to make their

babes precocious in walking or creeping or any of the phases of development that should come naturally. Persuaded to do things which they themselves have not mastered, the courage which goes with personal mastery is not theirs.

Eruption of the milk teeth comes at variable periods in different infants; from the third to the thirteenth month is about the range of the deviation of the appearance.

Normally the teeth are cut in groups, each effort being succeeded by a period of rest. The lower middle incisors usually appear first, to be followed in from three to nine weeks by the four upper incisors. The next group will be the other lower incisors and the first four molars, which are cut from the twelfth to the fifteenth month. The four *canines,* or cuspids, known as the "eye-teeth" and "stomach-teeth," come at from a year and a half to two years, and the last four molars between the twentieth and thirtieth month; these complete the first set, or milk-teeth.

The first indication of a beginning of the power of locomotion is when the babe will try to rest upon its feet when taken into the lap. When about seven or eight months of age, if placed upon the floor he will try to reach what is just beyond, first stretching out a hand and following with the knee. Later the erect posture comes. The babe will, by holding to a chair or anything that affords support, walk about that article. Then, when stronger, he will take one or more steps alone, gradually gaining strength and control over his muscles. At from the fourteenth to the eighteenth month he should be able to walk alone with ease and assurance. When the powers of walking are not developed at two years of age the case should be investigated, as it is hardly a natural condition. Delay may be due to general feebleness, to paralysis of the

muscles of one or both legs, while a limping with pain in the knee would suggest hip-joint disease.

In acquiring speech children learn to communicate by imitating other members of the family. Younger children learn more quickly than the first-born for having small playmates. A child of one year can generally articulate a few words of one syllable, but not more, because the small muscles of the larynx are not sufficiently under control. It appears to be easier, later, to pronounce a word of more than one syllable than to say two or more words of but one syllable, the brain not being equal to express the meaning of more than one word. At eighteen months most infants will be able to use a number of short sentences, and at two years to have a pretty fair command of language with which to communicate with the family.

It is rare to find a child that is precocious in both walking and talking. When they are forward in one direction they are backward in the other. If the sense of hearing is known to be acute, and the child is healthy, there need never be any worry as to backwardness in speech.

As soon as speech becomes possible, in any degree, the idea represented thereby becomes known. Words when learned are associated with the objects to which they apply. Between one and two years a child will distinguish small numbers, as one, two, three, four; at about the same time it has the sense of color, and can name some of the primaries. Distinguishing between noise and music varies very much. Some children very early are charmed by music, while others are "tone-deaf," as was Du Maurier's Trilby; but this apparently bears no relation to unfolding intelligence.

From the third to the sixth year development of intelligence is quite rapid. Prof. Hailmann says: "Endowed with an uncontrollable tendency for a further evolution in all direc-

tions, he stretches forth points of contact, eager to unite with any assimilable elements that may offer. As yet his power of discernment is small, with reference to the good or evil that is to result from the union. The tender membranes of the stomach absorb the corrupt liquid that breeds disease and death almost as eagerly as they do the wholesome milk of the mother; the mind receives delusive impressions, unites with the elements of vile thoughts and feelings as freely as with their opposites; the energies are exerted and grow in the direction of vice as actively as they do in the direction of virtue and wisdom; the child thrives as vigorously into hate as into love."

The senses and emotions predominate over the reason and intelligence. Training during these years must consist in guarding the child against contaminating influences, so that he will be brought in contact only with that which will aid him to grow in purity and goodness. And, as Prof. Hailmann further says, "the indiscriminate tendencies for absorption undergo a differentiation; the tendencies for wholesome elements gather new strength from day to day by uniting with their similars; the tendencies for injurious elements are weakened at an equal rate, starved to death, as it were, isolated, transformed into tendencies for good. The system is forming good habits, we say, and 'the formation of good habits' is the watchword of the true education of childhood."

The Teeth.

Second dentition begins about the sixth year, the first teeth appearing being the four double teeth just behind the posterior molars; they are the first permanent molar teeth. The milk teeth are displaced by the second teeth. As the permanent tooth grows toward the edge of the gum, it presses on the root of the milk-tooth in front and causes its absorption, the

whole root usually disappearing, and the temporary tooth loosens and drops out. The edge of the tooth that drops out is more or less ragged and sometimes gives rise to the idea that the tooth has been broken off. This, however, is not true, unless there has been actual violence.

The first milk-teeth to loosen and drop out are the two lower incisors, they usually being first to be cut; the second teeth which displace the milk-teeth follow the order of eruption of the first set. Sometimes, instead of causing the root to be absorbed the *canines* cut through the gum above or below the temporary teeth; when this is to be observed the first tooth must be removed, or "fangs," as the unsightly growths are called, will mar the facial appearance. From their position at the angles of the mouth these four teeth, more than any of the others, can make or mar the countenance. The permanent set is not completed until the appearance of the "wisdom teeth" at from sixteen years up—sometimes they never come through. Second dentition is considered done about the twelfth year, wisdom teeth not being regarded. There are twenty-eight teeth, until the appearance of the wisdoms.

Teething children during either the first or second dentition must have an even, smooth regime of daily life or they will be more or less fretful and querulous. The business of parenthood requires steady care during the progress through childhood to puberty. And if the healthy, happy child needs care, how much more must be the share of another who is an invalid—or semi-invalid.

A Nurse's Wise Suggestions.

A trained nurse says: "A sick child needs most of all to forget himself. Little need, in these days of the clinical thermometer, the 'feeling the pulse,' and understanding the facial expression, to be always quizzing an invalid as to how 'he

feels,' if 'the pain is gone,' if he 'is better now,' if 'anything hurts him,' or 'don't you feel able to sit up?' An intelligent nurse or mother can answer all these questions for herself without a word. To be put in mind of one's pain is as bad as the pain. Any one who has been sick knows there are intervals of self-unconsciousness when the thought is fixed upon some pleasant theme. * * * Every word and every act of the sick-room should be with a view to banishing self-consciousness. Do not even ask if the invalid is hungry. If it is time to eat, tempt by the sight of food. 'Spring the suggestion' on him and surprise the failing appetite, which if questioned does not always answer.

"There is danger of a sick child's being made selfish by his attendants. Teach him to think of others and to make as little trouble for willing feet and hands as possible. The child will be happier and have a better 'getting-up' morally. * * * The art of keeping a happy face before an invalid child is difficult to acquire, especially if the nurse is the mother, and a happy tone is yet more difficult.

"To rehearse a child's symptoms before the invalid is to do a very dreadful thing. In a short time the child will 'show off' his aches and pains for the benefit of strangers or members of the family. He will be taught that his sickness is interesting, and learn to exaggerate in an innocent way for the entertainment of friends. * * * Better teach the child that illness is often nature's punishment for sins or neglect of her laws, and that the culprit who is suffering should be more ashamed and sorry than proud. At the best, illness of any sort is a misfortune and should not be even discussed with complaisance. And yet illness may be a great teacher if the invalid has a wise nurse. Hearty resolves as to what good things one will do when one gets well are beneficial and hasten recovery."

Growth in Height and Weight.

The growth during childhood is seldom uniform. Children will often remain stationary for a time and then have a period of rapid growth. In the ninth or tenth year and again at the approach of puberty there are sudden shoots at growth.

The following table will give a good average for growth in height and weight from one year up to fourteen years:

Age.	*Height.*	*Weight.*
1 year	27 inches	21 pounds
2 years	31 inches	26 pounds
3 years	34 inches	29 pounds
4 years	36 inches	33 pounds
5 years	39 inches	36 pounds
6 years	41 inches	39 pounds
7 years	43 inches	44 pounds
8 years	46 inches	48 pounds
9 years	48 inches	52 pounds
10 years	50 inches	57 pounds
11 years	52 inches	61 pounds
12 years	53 inches	68 pounds
13 years	55 inches	77 pounds
14 years	58 inches	89 pounds

The chest measurement is regarded as another reliable evidence of development. The average infant should have a chest measurement of thirteen inches, which should at four months be increased to fifteen inches; to sixteen inches by the sixth month, to seventeen by the twelfth month. When the age of five years is reached twenty-one inches is the average chest measurement.

Children's Exercise and Play.

After the fifth or sixth year exercises that develop the breathing powers should be encouraged. Well-developed lungs aid the body to resist disease; they are one of the important eliminating channels, as well as the source of blood aeration.

Conscious breathing may be explained simply, so that a child will often of himself inflate and empty the lungs during the day.

Bed-time exercise is to be commended after the child is old enough to romp and play. Regularity should be observed, though the spirit of play should prevail. Of course a very young child can not be held to rule very well—but the kittenish frolic before bed-time paves the way for sound sleep.

Mother or father should be the playmate and leading spirit; and during the play-hour they will be enabled to learn tendencies that will guide them as shapers of character. The home in which children regard their parents as antagonistic to their recreation has something radically wrong at its foundation.

Gerald Massey's Advice.

Gerald Massey, who lived in the middle of the nineteenth century and was a prophet as to the coming enlightenment, had the following to say on the rearing of children: "The life we live with them every day is the teaching that tells, and not the precepts uttered weekly that are continually belied by our own daily practices. Give the children a knowledge of natural law, especially in that domain of physical nature which has hitherto been tabooed. If we break a natural law we suffer pain in consequence, no matter whether we know the law or not. This result is not an accident, because it always happens and is obviously intended to happen. Punishments are not to be avoided by ignorance of effects; they can only be warded off by a knowledge of causes. Therefore nothing but knowledge can help them. * * * It is good to set before them the loftiest ideals—not those that are mythical and non-natural, but those that have been lived in human reality. The best ideal of all has to be portrayed by the parents in the realities of life

at home. The teaching that goes deepest will be indirect, and the truth will tell most on them when it is overheard. When you are not watching and the children *are*—that is when the lessons are learned for life."

Building Character.

Knowledge of exact truth is the only sure way to create a loyalty to truth, and that, above and below all things, must form the true basis of character. Upon it all ideals should rest. Healthful, happy surroundings during the formative period of the ideal, with food for quickening the powers of imagination, will aid the youth to read delight in whatever sphere of life it may be his to live. As Gerald Massey says, a noble life, a splendid deed when unfolded to the child lights up his imagination and carries his thoughts and purposes into the realm of tomorrow, when he too will be an actor in the busy world of affairs.

When the development of imagination is neglected life is apt to be tame, without flavor or perfume. So while the body develops according to the care given it, the soul of a child, which really molds the after life, must be given its larger share of cultivation. Body and mind act and react on each other. But while the body may be made a perfect physique, if the poetic and emotional phases of character do not unfold, most of the influences which are uplifting will be as a sealed book, or as if they were not.

PART II.

CHAPTER VIII.

Disorders of Infancy and Childhood.

FOR convenience, the consideration of these disorders will be made under the heads of those occurring in *early infancy, during dentition,* and the *common maladies* of childhood.

In a tedious and difficult labor the shape of the head of an infant is sometimes deformed, and at times there are bruises resulting from prolonged pressure. The head will soon assume a natural shape. If the bruises are severe they may be bathed with something cooling; as *witch-hazel* and water.

The Umbilical Cord—The Navel.

The separation of the umbilical cord does not always proceed normally. It should shrink and dry away, with only a fine line of ulceration at the junction with the abdomen; and, when ready to drop off on the fifth or sixth day, it should leave a healthy skin with a slight depression in the center. The departure from the normal is when the stump of the cord softens and decays. In this there is a wide line of ulceration and a very perceptible odor of decay; the separation does not occur so quickly. When the navel cord is dressed with antiseptic absorbent cotton this condition will not occur. The cord should be powdered frequently with an antiseptic dry powder such as

boracic acid mixed with starch, which will arrest decomposition.

Occasionally, after separation of the cord, a small growth about the size of a pea will appear on the navel and discharge a thin liquid. The source of this discharge will be found to be a small ulcerating surface within the depression of the navel. This should be carefully washed and dusted with the *antiseptic* powder.

Rupture at the navel is not uncommon in infancy, owing to the thinness of the abdominal wall at that point. If, from any cause, the child cries lustily, the intestine may protrude to the size of a thimble, or larger. Care must be observed during the bath not to injure the protruding bowel. Upon dressing a padded pasteboard two inches square may be stitched into position, and placed over the rupture. Another recommendation is to take Burgundy pitch plaster, melt and spread over a cloth two or three inches square; then mold a small marble of the pitch and place in the center of the cloth; heat just enough to moisten and immediately apply with the small ball pressing over the navel. This can be left several days or until it removes easily; when another fresh one can replace it. Another good method is to replace the intestine gently, and while it is held back an assistant places over it several strips of adhesive plaster.

This form of rupture may appear at any time during the first year of life, but is most common during the early weeks of infancy. It is curable when care is persistently used; but if not, there is always more or less danger to health.

Irritation from Urine.

As the result of some irritating quality in the urine, the skin of the thighs, groins and lower abdomen sometimes be-

comes inflamed and red; or may, instead of the redness, be covered with small pimples, the heads of which are flattened or abraded. When this exists it will be found that the artificial food has been too rich, or too abundant, in which case it must be diluted more, or lessened in quantity. The diaper must be changed as soon as the bladder evacuates, if possible to be known, and at least three times daily the parts should be thoroughly bathed, dried, and dusted with the antiseptic powder. The diaper must not be used again without washing.

Crying when passing water should cause the nurse to make examination of the diaper to discover any unnatural condition of the urine. If there seems to be nothing abnormal in the urine, the external organs should be examined to discover and correct any irritation, or detect any malformation. In the male infant there sometimes exists a narrowness or unusual length of the foreskin which will cause trouble. This is corrected by a slight bit of surgery known as circumcision. In female infants a thin membrane is sometimes across the opening: a slight incision must then be made by the attending physician to remove it.

Inflammation of the Eyelids.

Inflammation of the eyelids of a new-born babe comes on about the third day. It will be noticed when the child awakens that the eyelids are slightly glued together, and the edges at the corner are redder than is natural. The light causes pain and there is a tendency to keep the eyelids closed. A collection of watery matter at the inner corner of the eyelid tends to run down the cheeks. The lids then become red and swollen and are kept closed.

When the first indication of glueyness is to be noticed, attention should be given to cleansing the eyes, for the great

point in the treatment is cleanliness. The eyes must be bathed three or four times daily with warm water, or warm milk and water. The best method for doing this is by two persons sitting facing each other. The one to administer the eye-bath receives the head in her lap while the assistant holds the body and confines the restless hands and feet. The head of the child is grasped firmly between the knees; the eyelids are separated and the eyeball washed with a very soft cloth moistened in the water. After the treatment the cloth should be burned, as this is a very contagious condition. The nurse must be very careful not to allow any of the discharge to get to her own eyes.

Nursing Sore Mouth.

Thrush, aphtha, or nursing sore mouth, is due to errors in diet, or to an inherited scrofulous condition. It is a spongy, morbid growth of yellowish-white color. Examining the mouth of an infant suffering from *thrush,* it will be observed that the tongue and interior of the cheeks and gums are dotted over by small patches like flakes of curdled milk. The true condition may be ascertained by attempting to remove one of the patches. When the disease is severe there is trouble in nursing; hence the name "nursing sore mouth." Sometimes the child refuses his food on account of the pain caused by attempts to eat.

This condition causes more or less indigestion through sympathy with the affected part. The importance attached to this disorder depends on the extent with which it interferes with digestion and the ability to take nourishment. It will not occur in children who are fed with regularity from the breast if the mother's milk is wholesome. But it is very common among babes fed artificially. Cleanliness of bottles, tubes and

nipples is imperative, and any slight disturbance of the digestive system should be corrected at once. The child's mouth should be examined frequently and the first indication of thrush met with proper treatment. The mouth should be washed lightly but thoroughly through the interior to remove any milk that may remain; after which a wash of sage tea in which a little borax has been dissolved will be all that is needed. The disorder rarely lasts more than a few days.

Diarrhea.

Diarrhea is Nature's method of eliminating objectionable matter from the digestive tract. In babes at the breast the condition is often caused by the mother's indiscretion in eating or drinking, or by worry and mental disturbance which so alter her milk that it is indigestible.

In hand-fed infants similar causes may be traced, as change in the feed of the cow, milk from a different cow, or some slight decomposition in the milk not noticeable to the adult sight or taste. A previous indigestion may have existed in a small degree, which will result in severe diarrhea.

The treatment will consist in finding and removing the cause, and in soothing and giving rest to the digestive canal. The child must be kept quiet, and heat applied. Never use remedies to check a diarrhea at once, as this prevents removal of obstructions and brings on serious illness. An enema of hot water will often bring relief without other aid.

Dr. Westland says: "As a general rule the less medicine given to infants suffering from diarrhea, the more rapid their recovery will be; and no medicine at all with the exception of one small dose of castor-oil at the commencement of the illness should be given unless sanctioned by medical advice. The symptoms which would indicate the urgent necessity of skilled advice are, mainly, great frequency of motion,

the presence of vomiting, a wasted and pinched appearance of the face of the infant, tendency to coldness of the hands and feet, and indications of twitching and convulsions."

Constipation.

Constipation is an unnatural condition, coming usually to the nursing babe from the diet of the mother. The colon, or large intestine, becomes impacted with the residuum of food which should have passed away. Want of regularity in feeding and holding the child out to stool are among the causes.

The first thing to do in constipation is to remove the impacted fæces. This may be done by injecting one to four teaspoonfuls of sweet oil to remain for six hours. To prevent the oil from being passed out at once a pad should be held against the rectal opening for five minutes. The object of the oil is to soften the hardened fæces. If there has been no action for six hours, then use an enema of warm soap and water, or salt and water. A teacupful will be sufficient to use for a small infant; more for an older child. The syringe tube should be anointed with soap or vaseline to insure a painless entrance. If possible, prevent the immediate discharge of the water by pressure on the anus. This gives time for the muscular activity of the colon to be well established.

The best position for the babe is on his back, or resting upon the abdomen upon the mother's lap.

The soap suppository is often used to cause an action of the bowels. This is made from a piece of castile soap, shaved to the size of a lead pencil, tapering at one end, and about two inches long. It is moistened in water and inserted nearly the whole length. In from one to five minutes the bowels will be moved.

After unloading the colon, attention must be directed to the cause.

NEVER GIVE A PHYSIC. A physic stimulates the secretions of the intestines and causes a free passage, but the reaction must come. The intestinal juices fall below the normal, the food cannot be well digested, and another wrong condition ensues resulting from the physic. After the lower bowel has been unloaded, try to overcome the constipation before it gets to be a habit. Massage over the abdomen for five or ten minutes at a regular hour each day will stimulate muscular activity. Give the child plenty of water to drink; in especial, a drink of pure water the first thing in the morning. Water is natural to the body, and except when the body is very warm, or there is a bad diarrhea, it would hardly be possible to give a child too much water.

Colic.

Colic has been a tormentor of infancy for generations; and the causes thereof are manifold. In infancy it may come from chill, from improper feeding, from maternal indiscretions. Dr. Stockham says: "Severe colics are usually the result of derangements of the liver, and when mothers are badly nourished the child is frequently *born* with the trouble."

A mild paroxysm may be relieved by rubbing a warm hand over the bowels. Also rub the feet; it assists in equalizing the circulation, by which the pain is overcome.

A warm bath of five minutes' duration is excellent. Let the sufferer be undressed and immersed to the armpits. When he is removed and dried, he may be placed without dressing in a warm blanket with a hot-water bottle to the feet. If sleep does not come, apply a poultice of cornmeal, or flaxseed in which there is a dash of mustard; previous to this the bowels may be relieved by a warm water enema. Then give a half-dozen drops of brandy in some warm water, by way of the

mouth. The stimulant is suggested if there is depression of the fontanelle, which suggests collapse.

The preventive measures for colicky babies are warmth to the bowels and extremities, and regularity in feeding. The bowels must be kept warm by the flannel band, and the feet covered with soft wool socks and booties.

It frequently occurs that infants do not pass away the meconium, or urine, for many hours, and sometimes not for days. If twelve hours elapse without action, the child should be immersed in a warm bath. This will relieve any congestion of the blood which may have prevented action of the kidneys. If there is any mammary secretion, putting the babe to the breast at once, allowing it to nurse, gives it material for causing the digestion and kidneys to act. If there is no secretion the babe may be given a small teaspoonful of pure soft water, which will clear the mouth, throat, œsophagus and stomach, and start an action in the digestive tract.

Teething.

Under natural conditions there should be no constitutional disturbances during the period of teething. If the mother is well, living an even, hygienic life, her nursing babe should experience no suffering during early dentition. And if the child is fed with regularity, has plenty of food and fresh air, the later dentition should cause no disturbance to the system. But if the body is not kept in wholesome condition almost any disorder may be fastened upon the child, the most common being of nervous, or of digestive, origin. Feverish conditions are also easily generated. But there is no single cause so prolific in fatality as the belief that teething is the cause of serious illness. When this explanation suffices the real cause of the illness is overlooked.

There is usually some irritation of the gums when the teeth are growing. Let the gums be frequently bathed in cool water. Allow the child to have a small, firm, clean piece of white cloth dampened in cool water to pull through his own toothless gums. Babes will always make strong efforts to gain relief. In addition to the irritation there is sometimes inflammation; often to such an extent that little ulcers are formed. These can be distinguished from thrush by the absence of any fungus growth. Indeed it is rare that thrush is to be seen after time for teething. Should the ulcers occur the application of glycerine of borax is excellent to apply to the gums twice daily. Lemon juice rubbed gently over the swollen gum is also excellent to relieve irritation. Lancing is not often needed.

For a general nervousness, the tepid bath night and morning is an excellent sedative. Given just before putting the babe to bed, it insures a quiet night, almost certainly.

A spasmodic attack known as "child crowing" comes on during dentition, sometimes. Usually there are preliminary symptoms in the form of a peculiar croaking in the breathing for days previous; again the spasm may occur without warning. Certain muscles connected with breathing are arrested in their movements. The child becomes suddenly stiff, throws its head backwards with staring eyes and an alarmed expression; the blood receding, the face becomes pale, then livid. Attacks of this nature, if severe, are attended with danger of sudden death.

What is to be done must be done quickly. Apply a cloth wrung from hot water to the throat; hold a stimulant to the nostrils; as camphor, ammonia. If these are not effectual get the child into hot water as soon as possible. As the spasm passes off the breath is drawn with a crowing or hissing sound.

Children with tendencies to "child-crowing," or *laryngismus stridulus,* as it is technically called, should be placed under medical supervision to prevent recurrence.

General convulsions differ from child-crowing in there being spasmodic action of the voluntary muscles. The attacks are sudden; the child is observed to be suddenly stiff, hands clenched and breathing arrested temporarily; after a few seconds there are convulsive movements of legs, arms and face; the mouth is moved irregularly, the face is twitched in different directions; the eyes roll from side to side, the eyelids wide open; arms and legs twitch in a marked manner, the convulsive movements extending to fingers and toes. If the attack is due to the irritation of teething it will be of short duration. There are many causes for this disorder.

The best treatment for immediate use is the hot full bath. If water is at hand, fill the bath-pan and place the child in without removing the clothing. Let it remain for five or ten minutes, then wrap up warmly and administer an enema of warm water. Often this is sufficient to produce a complete relaxation.

If the convulsion occurs shortly after eating it would suggest something indigestible in the stomach, and vomiting should be induced as soon as the child is able to swallow. If possible, tickling the throat with a finger is a good method. Frequent recurrences of this disorder suggest some serious cause for the attack. Place the child at once in the care of a reliable medical practitioner.

Colds—Croup.

When dentition does not proceed normally, and there is nervousness, slight causes are apt to produce severe consequences. Chill that might not affect at any other time may bring on colds, croup, bronchitis, etc. The tenderness of the

gums may communicate itself to the nasal passage, to the windpipe and bronchial tubes, and through chill may cause a state of inflammation. The cold commences with difficulty in breathing through the nose, acompanied by a watery or mucous discharge. This causes mouth-breathing and irritates the other breathing passages by lack of the warmth usually prepared by filtering in through the air passages of the nose and face. Within a short time a croupy cough develops. About this time *spasmodic croup* is apt to occur through the night. The child upon retiring may seem fairly well, but, within an hour or so after sleeping, will be awakened by apparent choking and a loud, ringing cough. While the attack is on it is frightful to witness, but is seldom fatal. If it lasts longer than a few minutes efforts must be made for relief. If it is possible, saturate the atmosphere of the room with steam. If the sleeping-room has no means of heating water, a small oil-stove is valuable to have at hand. Induce vomiting by means of syrup of ipecac, a teaspoonful every ten minutes; or by tickling the palate with the index finger. Vomiting assists to release the mucus which is closing the windpipe. Apply a compress wrung from either cold or hot water; cold seems more preferable for the reason that it will draw the heat of inflammation to itself; it will get warm and stay warm, while a hot compress will cool off. Renew the compress every hour until relief follows. If there has been any constipation the bowels should be cleansed with warm water. Dr. Keith says: "If warmly dressed and properly fed, the croup cannot 'catch' a child."

Bronchial Affection.

The bronchial affection is extension of the "cold," or inflammation, to the bronchial tubes. The child must be confined in a room with an even temperature night and day

until the attack is over. It must not be allowed to get cooler than 65 degrees Fahrenheit. Every inhalation of cold air aggravates the disorder. The use of steam is valuable to soothe a cough. Each family in which the children are subject to coughs and colds should be provided with a vaporizer. Open fires are best for the rooms in which bronchial patients are confined, as the air-tight stoves dry the air of the room and exhaust the oxygen. When the cough is severe and breathing impeded, apply a compress over the lungs and well up against the throat; cover with a dry flannel. Or apply a poultice of corn meal into which a little red pepper has been thrown and scalded with hot water; or a mustard poultice. These are counterirritants, bringing inflammation to the surface. When the attack is not severe, rubbing the chest and back with a stimulating liniment, such as camphorated oil or ammonia and oil, will be sufficient. Keep the bowels freely open by means of enemas if there is no natural action. Water is not a foreign substance to the economy of the body and can almost always be used with safety.

Summer Complaint—Cholera Infantum.

A prolonged diarrhea, sometimes known as *summer complaint,* causes great mortality among infants; and often attacks occur during dentition, although not caused by that process. The symptoms are frequent watery movements from the bowels, which at first may be green, and then brown and frothy. Sometimes there is a fetid odor, sometimes a soapy smell; the latter indicates there has been no intestinal action beyond the duodenum, as it is there saponification of the food takes place. Sometimes the passages are mixed with mucus and undigested food. When there is nausea and vomiting the disease is *cholera infantum,* a malady of the entire digestive tract.

Improper food and impure air, together with the enervating heat of summer, cause summer complaint. Bottle-fed babies are most susceptible to it. It is very difficult to find a prepared food that wholly agrees with an infant, and digestion is upset by experiments. After weaning-time many children are allowed to sit at the table with adults and be helped to whatever is served. The digestion of a baby, or a two-year-old, is not capable of making use of an indiscriminate diet, and rich food is unsuitable except for active, vigorous adults who are much in the open air.

Some children are prostrated at once by an attack of this nature, while others lose strength gradually. It is best to put them to bed whenever the movements begin to look suspicious, especially if the head is hot and extremities cold. Quiet is absolutely necessary along with heat applied to the extremities to equalize the circulation; apply cold compresses to the head and change frequently. The juice of fruits is excellent to allay both thirst and feverishness; when this is given strain through a sieve to prevent any pulp from being part of it. The juice of blackberry is very good; babies that have held nothing on the stomach soon accept unsweetened blackberry juice. Orange and lemon juices are also very grateful. Little food can be appropriated when these attacks are on; what is given should be in liquid form, as solid substance would have an irritating effect on the mucous lining of the alimentary canal. Milk, reduced one-third by boiling water, may be a stand-by if relished. Administer regularly. Barley water, rice water, thin oatmeal gruel are good. Allow the barley or rice to soak for some time and then pour off the water for the invalid.

If twenty-four hours' nursing, with quiet, in a well ventilated room, quenching thirst with pure water and fruit

juice, and feeding liquid food, does not act for the better, send for your family physician. Do not let the patient get too exhausted before sending for skilled attendance. But, unless the case has been too aggravated by unhygienic living, the above treatment ought to suffice, if given with care and conscientious attention to the patient.

Abscess of the Ear.

Abscess of the ear is occasionally to be met with during dentition. Sometimes it is so severe as to occasion convulsions. A babe cannot make its distress known except by gestures and cries, and when this disorder is present it will cry and toss the head from side to side, raising a hand to the afflicted side.

When this is suspected, relief may be had by plugging the auditory canal with a cotton pledget soaked with laudanum. The outside may then be covered by a hot compress.

The painful stage of the abscess rarely lasts more than a day, disappearing when the pus begins to flow.

Should convulsions occur, the treatment has been given heretofore.

Infectious Diseases.

There was a time when it was supposed every child must have chicken-pox, mumps, measles, whooping-cough and the like, and mothers would take their children into families so affected in order to inoculate them with the disease. But it is now known to be true that healthy bodies resist disease, and the doctrine of health is reverberating where sickness and disease once swayed. Of the progress of the medical profession Dr. George F. Shrady said: "It now embraces biology, psychology and metaphysics, and is becoming *more the work of prevention than the cure of disease.*"

The mother of children should preach and practice moderation in all things unless it be breathing fresh air; and even in that there can be a kind of intoxication by breathing too much too long. It used to be customary to arouse the children of the family when the adults got up, and make them do half of the work, with the result that few arrived at healthy maturity. Studying causes, many of these adults have been bringing to light the precious gospel of health and happiness during childhood as the basis of serviceable and happy maturity.

Try by all means at hand to make your children "sound in wind and limb," "healthy in body and mind," and they have within themselves power to resist disease.

If you have not been successful in so doing, following are some statements as to the common diseases of childhood, with their treatment:

The infectious diseases are those which may be communicated from one person to another in books, clothing, food and other articles. They have a definite run, and have four distinct stages, which are the *stage of incubation,* or between receiving the infection and any active symptom of illness; the *stage of invasion,* or the period between the symptom of illness and the eruption; the *stage of eruption,* from the time the eruption appears until it disappears; the *stage of desquamation,* or shedding the cuticle in the form of scales.

Chicken-Pox.

Chicken-pox is a mild disorder, rarely giving a child more inconvenience than a slight feeling of nausea or headache. The eruption appears in the form of small red spots unevenly distributed over the body; these rapidly change to watery vesicles surrounded by a pink ring. The vesicles are not of uniform size; some are the size of a pin-head, others may be a

quarter of an inch in diameter. The eruptive stage lasts three or four days, and is characterized by much itching.

The child should partake of a mild, unstimulating diet, and have the bowels freely active; the itching may be allayed by warm baths and vaseline applied afterwards.

It is most contagious in the last stage, when the scales are dropping, and can be carried away in the clothing of others.

Measles.

Measles is an eruptive disease very easily spread, because the contagion is strongest during the first, or incubation, stage, when people are least apt to guard against it. This stage lasts about twelve days, and only during the last two or three days is there a suggestion of cold with weak, watery eyes and stopped-up nose. Then there are headache, fever, sore throat, cough and catarrhal symptoms, generally accented. The eruption begins on the face near the roots of the hair, spreading downward, covering the whole body within twenty-four hours. The fever usually increases as the eruption comes out, and decreases with its disappearance. The catarrhal conditions also increase with the eruption. Care must be used in measles to prevent chill; if the blood is made to recede from the surface to the internal organs, bad complications will occur. But the sick-room should be well ventilated and have plenty of light. Sunshine and air are nature's disinfectants. The room should be kept at a temperature between sixty-five and seventy degrees, Fahrenheit, night and day. Let the patient have a simple diet of bread and butter, fruits and rice, with milk as a beverage, and plenty of water during the illness. Frequent spongings with tepid water are very grateful during the eruptive stage. Any complications, such as difficult breathing, or increased feverishness, will call for medical skill.

Scarlet Fever.

Measles and scarlet fever have some points in common that sometimes cause one to be mistaken for the other. But there are differences enough that they may easily be known apart. As, for instance, in scarlet fever there is rarely any cough, in measles the cough is troublesome; in measles the eyes are watery and eyelids swollen, in scarlet fever the eyes are dry; in measles the eruption is rough to the touch, in scarlet fever it is not. There is a difference in the color, too, measles being of a raspberry hue, while scarlet fever is what its name implies. The rash in measles begins about the face, in scarlet fever on the chest. In the latter a white line is left for a few seconds after pressing a finger over the point of eruption.

Both diseases are contagious throughout their duration, but measles is most so in the stage of incubation, while scarlet fever is most so during desquamation. Both vary in severity in individual cases, but scarlet fever, of all infectious diseases, is most apt to assume a severe form, and therefore should be under medical supervision. Perfect sanitation is imperative, and upon attentive, intelligent nursing under the physician's direction the child's life depends, while, to prevent a spread of the contagion, child and nurse must be isolated for about six weeks, or until the diseased cuticle has been replaced by firm, new skin.

Small-Pox.

Small-pox is in the class of eruptive fevers, but public sanitation takes hold of the disease so quickly, it is not necessary here to give any but distinguishing features. The period of incubation is about twelve days; then, as in other fevers, there is chilliness, headache, dizziness, high temperature, and a very marked pain in the center of the back and loins. The lat-

ter, in connection with pain and tenderness in the stomach, and more or less nausea, would indicate small-pox. Especially so if there is epidemic small-pox. It is contagious from the varioloid that results from vaccination sometimes. A severe case of small-pox was that of a young lady who slept with a school-girl sister who had been vaccinated under the compulsory vaccination law. The inoculation caused so severe a fever it was communicated to the sister, who had small-pox. Varioloid is just as contagious as small-pox. It cannot be known at the beginning of the malady how severe it will be. It depends on the resisting powers of the individual.

The stage of invasion lasts about three days, when the eruption begins to appear in the form of small, red pimples, which feel like shot under the skin. The face, neck and wrists are first covered, then the body, and finally the lower extremities. The pimples increase in size until about the eighth day, when suppuration begins. Scabs are then formed after another week, which, unless great care is used, leave marks or depressions over the skin. The fever commences to subside when the eruption begins. Before the eruption there is usually more or less delirium, so that a small-pox patient needs constant attendance.

This being a very infectious disease, patients are always isolated and their clothing burned or disinfected.

Mumps.

Mumps and whooping-cough are two diseases which, while not eruptive, have a development similar to those that are. Mumps is a disease generated, Dr. Ruddock says, by peculiar conditions of the atmosphere which breed "a specific morbid miasm." It occurs most frequently in cold, damp weather. The stage of incubation is from eight to twenty-one days,

during which time the patient has "that tired feeling." The stage of invasion begins with chill, headache, fever, and sometimes nausea with vomiting. Local symptoms are manifested in pain and tenderness under the ear; the parotid salivary glands swell, and continue to be sore and painful for a week or more. Sometimes but one gland is affected at a time, sometimes it leaves one and goes to the other, lengthening out the progress of the disease. In severe cases the whole face presents a tightly swollen appearance, but the skin over the gland is rarely discolored. A great deal of discomfort is caused by the inability to eat without pain. It is infectious throughout the disease, but most so during the stage of incubation.

No active treatment is needed unless by exposure or want of care the disease is transferred to the testicles of the male or to the breasts of the female. These glands should then be treated with compresses to allay fever. The diet must be plain, the bowels freely open, and the patient kept in an even temperature. Always, in any disease, there must be care exercised as to perfect sanitation.

Whooping-Cough.

Whooping-cough (or Pertussis) resembles the foregoing diseases in having distinct stages of incubation and invasion. The former is from a week to two weeks, and in the latter days expresses itself in the symptoms of a common cold; the stage of incubation begins with fever, loss of appetite, fretfulness, etc. Cough is usually present from the beginning of invasion, and from that gains in severity. The spasmodic attacks of the cough occur with varying frequency, from three or four attacks during the twenty-four hours to an attack every hour of the twenty-four. Each paroxysm consists of a number of sudden, violent, short expiratory efforts,

that the patient seems on the point of suffocation; then the deep-drawn inspiration assumes the sound of a whoop, which assures the temporary safety of the suffering one from loss of breath. The thick, ropy expectoration differs from the ordinary cough, and may signify the disease even though no "whoop" is heard. There is a gradual lessening of the number of paroxysms until the cough is entirely gone. Recovery depends more or less upon the climate and season of the year. If there are no complications, ordinarily the disease will be over in from four to six weeks. Weather being damp or stormy and the patient confined, the cough may be persistent. The following is excellent to relieve the cough:

Take one lemon and slice thin; add half-pint flaxseed, two ounces of honey, one quart water.

Put on the stove and let simmer for four hours, but not boil. When cool, strain and add water enough to make a pint of liquid. Give a tablespoonful four times daily, and also after each severe paroxysm of the cough. It helps in the majority of cases, especially where care is used to perfect sanitation and to keeping the bowels open.

Complications most likely to occur in whooping-cough are inflammation of the lungs, including bronchitis, convulsions and bleeding at the nose.

To arrest excessive bleeding at the nose, let the child lie flat upon the back with head elevated. Apply cold water or ice to the forehead. In obstinate cases powder of gum Arabic blown into the nostrils with a quill will stop the discharge.

Bronchitis.

Bronchitis is inflammation of the bronchial tubes. It is indicated at first by a dry, resonant cough, which may be accompanied by a wheezing. When it has existed for a day or two the cough becomes softer and looser, and the wheezing is

succeeded by moist gurgling sounds. Breathing is more difficult lying down. The expectoration at first is transparent mucus, which becomes yellowish and more fluid-like as recovery approaches.

Small children very seldom know how to expectorate, and the swallowing of mucus may cause some derangement of the digestive tract.

Bathing the chest and back with a stimulating liniment helps to overcome the inflammation. If severe, apply poultices to the chest and back. After the poultices have been removed protect the lungs, front and back with flannel or cotton batting.

The *most important* remedial agent in treating bronchitis is to preserve an even temperature in the sick-room. The steam kettle is often advisable also.

Diphtheria—Tonsilitis.

Diphtheria is a disease always of serious import, so infectious in character that the patient ought immediately to be isolated with the nurse. It begins to be noticeable by chills, fever, quick pulse, husky voice, inflamed throat, and sometimes vomiting and diarrhea. Where there is bad sanitation is the place where diphtheria will devastate. The local characteristic of this malady is a dry, swollen throat, sooner or later covered with glistening white patches. The membrane changes color as the disease progresses, to yellow, to gray, and even to black.

Tonsilitis is a disease for which diphtheria is mistaken sometimes. Upon examination the tonsils will be seen to be enlarged; very commonly the surfaces are dotted with white points, though occasionally spread over the tonsils. But this is limited to the *tonsils,* and can be removed by scraping with

the handle of a spoon. In diphtheria the patches may cover not only the tonsils, but also the roof of the mouth, the hanging palate and the pharynx, and can never be separated by scraping.

Diphtheria always requires skilled attention. Tonsilitis may be relieved by compresses or poultices to the throat; gargle or spray the throat with a solution of borax in raspberry leaf infusion. Inhale the vapor from a hot infusion of bayberry bark and vinegar. Keep the bowels open.

Membranous Croup.

Membranous croup is said by some to bear a relation to diphtheria, the two diseases having a resemblance. This disease begins as a hoarse cold, and its progress is so slow that one often does not suspect it until it is too late to save the child. The croupy attack usually awakens the child in the night. He is frightened and restless and cannot lie down with comfort. There must be no dalliance. Send for your most trusted doctor at once. In the meantime try to induce vomiting to relieve of the smothering mucous membrane. Administer an infusion of pleurisy root, with ginger and lobelia added, every fifteen minutes till vomiting occurs. After vomiting give it every half-hour to maintain relaxation; if suffocation seems imminent increase the dose and the frequency of administering. Have the bowels move freely. Put hot applications to the feet if the extremities get cold. Fat babies are most susceptible to this scourge—this terror of mothers.

The Mother's Medicine Chest.

Every mother should have her medicine chest for emergency cases, keeping it safely locked from the busy, inquiring fingers of little Miss Peep or Paul Pry. A knowledge of the uses

of remedies which may be the "ounce of prevention" in saving a beloved life is worth while cultivating. In the medicine chest should be arnica, camphor, vaseline, ground mustard, ground flaxseed, turpentine, adhesive plaster, a roll of bandage not wider than two inches, a pair of scissors, etc.

External applications are of much value and can be used with safety and benefit when one would not (and should not) trust one's self to administer internal medication. The digestive apparatus must be guarded against derangement, for upon it the whole body depends for nourishment. Mothers and nurses should be very chary of the "give-some-medicine" hobby in slight ailments.

External applications have four purposes. First, to increase or diminish the temperature of the body; second, the maintenance of moisture; third, counterirritation; fourth, absorption of medication.

The first is accomplished by means of hot-water bottles or bags of ice; the second by means of compresses, which are prepared by folds of cotton or linen dipped in water. These should be covered by dry cloths; or better, by a piece of oiled silk, which retains the moisture better.

Counterirritation relieves internal congestion by diverting a portion of the blood supply. Mustard plasters and stimulating liniments are most commonly in use. A general rule for the application of a counterirritant is, the greater amount of surface covered the less amount of irritation should be set up. A mild mustard plaster, or a cornmeal and capsicum poultice, may be applied to the back and chest in inflammation of the chest, while a very strong one may be used for a pleurisy pain, or over a small portion of the skin.

Generally two of the objects for which external applications

are used may be accomplished by a poultice which furnishes both heat and moisture.

A fountain syringe and hot-water bottle are important adjuncts to maintaining the health of the family. These, in connection with the bath used intelligently and perfect sanitation, will overcome the minor ailments and largely assist in curing those of a serious nature.

PART II.

CHAPTER IX.

Afflictions Peculiar to Women.

THE generative system of womankind is not peculiarly sensitive and prone to derangement, as one would think upon superficial consideration. That so few women are free from "female weakness" is due to ignorance of the special anatomy and physiology of their nature. Through the lack of correct information the body is misused and abused, and no part of it more so than the sexual system, through the oldtime theory of its degradation, as if the First Great Cause would select a medium of impurity to multiply and replenish the earth. Health and morals will be without self-support so long as the generative system has been disregarded, for it, in its true conception, is the basis of purity—of physical, mental and spiritual health.

The foundations for female afflictions occur in girlhood very often, through dress, immoderation in exercise or lack of exercise, and the secret bad habit known as self-abuse or masturbation. Corsets, tight dresses and heavy skirts curse a large majority of womankind, not only in youth, but in maturity as well, for the reason that they are ignorant of cause and effect. The ignorance prevents any degree of self-reliance, so that for mental ease they *must* follow the fashion, be it what it may.

The followers of Madame Grundy, after several years' devotion, become unsexed. That is, the pressure upon the vital parts, including the generative system, prevents free circulation of the blood, which carries vitality to all parts of the body. This constant loss to any organ weakens and in time makes it useless.

The Deadly Corset.

A writer to *Physical Culture* says: "At thirteen or fourteen the corset begins its stifling and demoralizing influence physically, mentally and morally. It crushes in on the great vital center at the waistline; it crushes down on the organs of sex, displacing, weakening and deforming. This great nervous center, that depends upon the use of the muscular system at this part of the body for growth, strength and the perfect working of its functions, practically lies there in an abnormal, inactive state. The bones of the corset prevent the body from bending at the waist; hence these muscles and the entire abdominal region gradually deteriorate in vigor.

"With the organs of sex thus surrounded by weakened, flaccid muscles, in which the blood barely circulates, can one expect girls to develop that power and instinct of sex which is as much a part of true womanhood as light is a part of day? It is the instinct which gives them clear, definite ideas in the selection of husbands. It is the instinct that protects her and the man she marries from excesses that degrade, demoralize, and at times destroy."

Healthful Dress—Exercise.

Healthful dress is not incompatible with beauty, as any who *knows* can testify, and street and visiting gowns can even follow the prevailing mode to a given extent. A woman who

has defects will, of course, upon adopting rational dress, try to develop her body where it is lacking. She whose waist has been compressed cannot stand or walk as gracefully as the unhampered woman, but no one is ever too old to learn, if the mind is fully determined.

Moderation in recreation and labor will guard against the evils which result from inactivity or overexertion. While actively exercising let the muscles of the body be without restrictions, so that full, deep breathing is possible. Waist breathing is natural breathing, the principle being the same as in a pair of bellows. The floating ribs are lifted, the air inflates the lungs and expands the waist; the ribs are lowered, the diaphragm becomes concave, and the air is forced out of the lungs. Conscious breathing develops lung capacity when the waist is free from restrictions.

The destruction of health that comes from self-abuse is usually combined with the corset habit, together laying dreadful waste. A young woman who can use her reason against the evils of conventional dress is pretty sure to save herself from other evils because of innate tendency toward perfecting herself.

Pure Thought, Activity and Knowledge.

To prevent self-abuse the mind must be filled with pure thoughts, which will crowd out the darkness of ignorance. Then the voice of passion must be recognized as a prompting to activity and the whole being kept busy. Idleness begets sensuousness, and sensuousness in turn robs one of the ability to do.

Dr. Mary Wood-Allen says: "The youth entering upon puberty might have explained to him some of the mysteries

of life; probably it would not be incompatible with his age to explain to him that the life of the animal or vegetable kingdoms is continued through the power of reproduction with which the Creator endowed the whole produce of the earth. This power of reproduction or generation constitutes the *very essence of life.* To enable this vital function to be fulfilled every plant and every animal is furnished with organs of reproduction. As it has organs of respiration for breathing the air, organs of motion, organs of digestion for assimilating its food, so it has organs of reproduction for handing on the life it has received and reproducing itself in its offspring. This is the most important function of the whole vital economy of every living form."

Dr. Cordelia Green says: "The procreative organs are so arranged in both sexes that through the medium of the sympathetic division of the nervous system the brain and spinal cord—in fact, every element of soul and body—are in direct communication with them. With mental or physical excitation there is great exaltation of the action in the brain and spinal cord, with congestion of the procreative as well as the nervous centers. Next follows the movement downward to the pelvis of all the creative force, and the vital energy which is the source and sustainer of all human activities is given off and lost.

"Disturbing brain influence is kept up quite as certainly by the states of thought and feeling as in any other way, and may become so constant as to produce the most exhaustive drainage of the strength."

To eradicate excitement of the procreative system, body and mind must be kept clean and active. Food must be pure, simple and nourishing; the body must be free and untrammeled. The difficulty of overcoming self-abuse is because

of the exhaustion of will-power. But activity increases strength because activity is natural. When idleness is known to be dangerous as the cause of the abnormal appetite of passion, and healthful action made a habit, cure will soon be effected.

The disorders commonly known as female complaints are inflammations, ulcerations, abscesses, tumors, dropsy, cancer, catarrh, etc., which afflict the generative organs when they lose vigor from any cause; in addition to these are the displacements of the uterus.

The Causes of Woman's Ailments.

The causes of these disorders are many, but the chiefest of all will be found to be errors in dress, overexertion, or too frequent intercourse after marriage, which may or may not result in frequent child-bearing, miscarriage or abortion. Of the latter Dr. Stockham says: "It is the undesired and undesigned maternity that is revolting to the nature of woman. As long as men feel that they have a right to indulgence of the passions under law, no matter what the circumstances, what the condition of the wife, or the probabilities of maternity, so long will the spirit of rebellion take possession of women and the temptation enter their souls to relieve themselves of this unsought burden." And Dr. Delos F. Wilcox says: "What is to be said for the man who, for the sake of his individual satisfaction, or even for the sake of some slight increment of health, would pile his burdens upon the back of a woman already loaded down with the pains and dangers of menstruation, pregnancy and child-bearing? What is to be said of the young fellow who has wasted himself until, to alleviate his condition, he marries a healthy girl to shift upon

her and a family of children as much as he can of the penalties of his indiscretion? What is to be said of the rugged husband who, for the sake of his 'health,' compels his wife to choose between chronic pregnancy and the discomforts, dangers and moral deadening attendant upon abortion and the use of expedients to prevent conception? The doctrine of man's 'necessity' was born of sensual indulgence, and is perpetuated by self-deception and overweening selfishness."

There is another affliction, too, that comes from husbands who have indulged in indiscriminate intercourse. Many so-called womb disorders are but the result of impurity brought by husbands to wives whose amativeness cannot satisfy the demands made upon them.

Dr. W. P. Gray, writing to *The Medical Brief,* says: "I can never treat a case of syphilis, whether of recent or constitutional form, without feelings of horror and regret. If the disease could be confined to the real guilty violator of the sexual laws of chastity it would not have such a destructive and contaminating influence on innocent motherhood and offspring.

"I know a beautiful young woman, as pure as gold, who was wooed and won to the companionship of a syphilitic husband, only to give birth to a blasted child; both mother and child finally succumbed to this terrible disease of rottenness and filth.

" * * * Why not require physicians to register such cases the same as any other contagious disease by contact or exposure?

"Even castration by law would not be too severe a punishment to such diseased persons who would marry other and innocent persons to spread and contaminate them with this loathsome disease."

Like should mate with like. An impure woman should not impose upon a pure man; vice versa. The status in the mind of each can be determined before marriage by following the suggestion of Delos F. Wilcox, Ph. D., who says: "No marriage has the promise of success unless the lovers are so conscious of the responsibility of the relation and so trustful of each other as to be willing to ignore the barriers of so-called propriety and reach an explicit understanding regarding the relations which shall obtain between them after marriage. The frank discussion of the sex-life and the duties of parenthood forms only the bare essential of the free communications of courtship."

Of course, the relation cannot be entirely understood before marriage, but all possible light on the laws of nature (which are the laws of God) will prevent a ruinous exhaustion of their life-forces in the bonds of wedlock.

Leucorrhea.

A very common ailment of women is that known as leucorrhea, whites, or catarrh of the uterus or vagina. In health the mucous membrane of the uterus and vagina is always kept moist by its own secretion. When this mucous fluid is secreted in too great quantities it is the condition called leucorrhea. The discharge presents various shades and consistency. Physicians are able to tell from the nature of the discharge whether it comes from the vagina or uterus. When from the vagina it is generally a light creamy-looking fluid; that from the neck of the uterus is a tenacious, albuminous fluid and rather copious; from the lining membrane of the uterus the discharge is of an alkaline reaction, profuse, and generally precedes and follows menstruation; in ulceration of

the mouth of the womb the discharge is profuse and semi-purulent. The disease is not usually accompanied by pain, but is never long-continued without producing derangement of the general health through exhaustion. The constant drain will, if not checked, result in nervous irritability, hysteria, difficult respiration, uterine derangement, and even consumption.

Greatest attention to cleanliness must be observed. Every young woman who has had a menstrual flow should be taught the use of the vaginal tube of the syringe. A syringe is as necessary an article of the toilet as soap, towels, combs and brushes. If it is "against nature" to use the syringe, the same argument holds in the use of the other articles humankind has invented according to its needs.

Mr. Edward B. Warman, in the *Ladies' Home Journal,* said: "Internal baths when properly taken are often more essential than external baths. The four avenues of elimination must remain unobstructed if perfect health is to be obtained or retained."

The vaginal douche should be a part of the daily bath, and flushing the colon should occur twice or three times a week before retiring. The odor of the bowel passages should be an argument to persons of ordinary intelligence for giving the lower bowel a regular bath. As a prophylactic no one item of care of the person will tell more strongly for health.

For the cure of leucorrhea hygienic regulations must be observed. If the urine is scalding, drink flaxseed tea or an infusion of marshmallow root. As a vaginal injection use twice a day one ounce of the following in a pint of lukewarm water:

White fluid hydrastics, 2 ounces.
Borax, ½ ounce.
Distilled witch hazel extract, 1 pint.

Inflammation may affect any or all parts of the generative system; it is the more serious when all are involved, of course. It is *ovaritis* when the ovaries are inflamed; *salpingitis* when the Fallopian tubes are inflamed; *metritis* when the uterus is wholly inflamed; *vaginitis* when the vagina is inflamed. The disorder is the same in greater or less degree, and the symptoms are much the same, varying only in location. There are stinging, burning sensations, sometimes sharp flitting pains, a swelling and tenderness of the affected part; chill, followed by fever, may be the first symptom of the ailment, and headache a constant attendant. When any degree of inflammation becomes chronic the nervous system is more or less deranged in sympathy.

Severe cases will call for medical attendance, as there are dangers from complications. Mild cases are relieved by first flushing the colon. The lower bowel should first be emptied of the impacted fæces; then the colon be filled with hot water. This relieves the congestion on three sides of the generative system. (Notice the position of the ascending, transverse and descending sections of the colon.) It should be retained as long as possible. One quart of water may be retained at first; at other treatments the quantity may be increased.

Quietude in bed is essential; apply a stimulating liniment over the abdomen and use a hot-water bottle to the feet. This equalizes the circulation.

Where the vaginal canal is inflamed, as it may be from too frequent or too violent intercourse, or from the use of pessaries, the hot water injections must be used to the vagina. A continuous stream of hot water will drive the blood from the parts and for the time relieve the inflammation. Remove the cause, cleanse the bowels regularly, and if the vaginal dis-

charge is offensive add a few drops of myrrh to the vaginal injection, which should be used at least twice daily.

Displacement of the Uterus.

Displacements of the uterus are rather tedious to cure, but the chief ingredient to that end is a sincere desire of the sufferer to be cured. There is no remedy taken internally that will cure displacements. Rest and a simple diet, with exercises for strengthening the abdominal muscles, are the means of cure.

The different uterine displacements are known as prolapsus, retroversion, anteversion, and the flexions, or where the uterus bends upon itself.

The uterus is supported by eight ligaments and by the muscular strength of the vaginal walls. When all of these supports yield there is prolapsus or falling of the womb, when the organ descends into the vagina, and often through the valva, and becomes external. The relaxation of the uterine supports is, of course, due to debility from some cause. Often the cause is found to be in a too early getting up after tedious or severe labor, when the parts have been very much weakened or lacerated.

The cure will consist in occupying at night a bed elevated at the foot at least eight inches higher than the head. Rest during the day at least an hour in the morning and an hour in the afternoon, with the feet and hips elevated. This may be effected by placing an inverted chair upon the bed or lounge, making it comfortable by means of padding with pillows or bed covers. This uses the law of gravitation to replace the uterus. Avoid any heavy labor when upon the feet. While in the lying position practice waist breathing, as by that means

the abdomial muscles are exercised. Dr. G. R. Taylor, treating upon this subject, says: "Increase the pump-like action of the chest, and it will be found that the displaced pelvic viscera will return to their normal position."

Is it necessary to remind any woman who has suffered from falling of the womb not to wear corsets, heavy skirts, etc., to press the viscera out of position again? One who wants to be cured and *stay* cured will not repeat the aggravating causes.

Astringent vaginal washes assist in restoring tone to the vaginal muscles, and are much used in the treatment of this disorder. The following is good: Use as an injection twice daily a pint of tepid water in which has been dissolved one and a half teaspoonfuls of powdered alum. Always in using medicated washes the parts should first be cleansed of unhealthy discharges.

In retroversion the uterus is turned or bent backwards; pain resulting from this displacement will be a prolonged and sickening ache in the lower part of the back. The position of the uterus will aggravate any tendency to constipation. Here the flushing treatment will be especially valuable in that it cleanses the colon, and by the dilation of its walls with water tends to push the uterus back to position. The chest-and-knee position favors a return of the organ to place. The patient kneels upon the knees and chest so that the hips are highest. When the organ is returned to position she must then practice the same methods as for curing prolapsus.

In anteversion the body of the uterus is thrown forward against the bladder. There is a sense of fullness in the pelvis, of weight and bearing down, accompanied by pain in the rectum and perineum; frequent desire to pass water, and partial

inability to do so. The uterus can be returned to position by resting upon the back with hips elevated, and by using the same treatment as for prolapsus.

In any female disease the return to health is greatly assisted by cheerfulness, mental activity, deep breathing, bathing and friction of the skin, and the internal bath.

Ulceration.

Ulceration is usually to be seen at the neck of the uterus or on the lining membrane, and is induced by impurity of the blood determining to a weakly uterus. It may be of scrofulous or syphilitic origin, or other less virulent impurity may induce it. It is attended with an offensive discharge, and there is much stinging pain in that region. Inflammation always attends ulceration, so the treatment is as in that disorder. The impurity in the blood may be assisted out of the body through vapor baths, pure food without stimulating drinks, flushing the colon, and by taking a blood purifier such as the following:

Yellow dock, ½ pound.
Bittersweet bark, ¼ pound.
Figwort, 2 ounces.
American ivy bark, 2 ounces.

Grind together and macerate for forty-eight hours in one pint each of alcohol and water. Strain and sugar to make two quarts. Dose—One or two teaspoonfuls after meals.

Ulceration of the womb may lead to cancer, which is a malady hard to overcome.

Intercourse should be avoided. Disease may be imparted to the male, and excitation is bad for the female suffering from this complaint.

Abscesses, tumors, dropsy and cancer will require skilled treatment. (For same see "A Physician in the House," by J. H. Greer, M. D.)

The Menopause, or "Change of Life."

Any disease of whatever nature can be greatly modified by hygienic regulations, by keeping the four eliminative processes active, by free, untrammeled dress, pure food, pure water and pure air in abundance.

Women who have pinned their faith to the doctors and medicine alone will be found to be dragging through many years of invalidism, with physicians' fees preponderating.

The best cure for any disorder is in its prevention. Therefore, be moderate in all things.

The menopause cannot properly be classified as a disease any more than pregnancy or menstruation. It comes when the childbearing period is at an end. One writer says: "Ordinarily all the sufferings and ailments incident to this period can be accounted for from some ovarious or uterine disease, dyspepsia, or other deviation from health. Irritation or congestion of the ovaries, more than any other cause, decides the numerous symptoms of the climacteric."

The childbearing period lasts from thirty to thirty-five years normally. It is sometimes prolonged beyond that time, sometimes cut short.

The beginning of the menopause is marked by irregularity in menstruation. The periods may be absent for several months, or there may be frequent and profuse flowing. In

some women these conditions alternate. The irregularity continues on an average of three years. Some of the pathological conditions of the change of life are hot flashes, chill, profuse perspiration, capricious appetite, heartburn, sleeplessness, pain at the base of the brain and down the spine. Uterine hemorrhage sometimes occurs, and tumors, cancer, polypi, etc., are of more frequent occurrence than at any other period of life.

Knowing that this is a critical period of life, women approaching the menopause should prepare to give the body necessary attention, while not allowing the mind to dwell too continually upon self. The system should be fortified with nutritious food and the four eliminating avenues kept in activity. If internal cleansings have not been the rule, they should be begun and adhered to during the change.

For hot flashes, heartburn and sleeplessness disordered digestion will be found to be the cause, in which case use the stomach bath every morning before eating. This consists of drinking a pint of water as hot as can be taken. Hot air baths are especially valuable during this period; by this means the millions of pores of the skin will bear outward much impurity which will cause painful manifestation if left in the system. Fleshy women can hardly use water too freely; thin persons should be more sparing.

At puberty the ovaries enlarge; so when menstruation ceases and the organs no longer have so much work to do they shrink and become small. The uterus diminishes in size, likewise the vagina and mammary glands. But a woman can be just as healthy at the menopause as she was at puberty, and be more sweet and feminine and more truly enjoy life than in girlhood.

When menstruation is encouraged as long as possible, the tendency to uterine growths is materially lessened. It is

also preferable that there be little or no intercourse during the change, to avoid congestion of the parts.

Sometimes the secretions from the uterus and vagina are acrid and cause external soreness, in which case a little borax or baking soda should be added to the water for vaginal irrigation. A compress over the abdomen at night will reduce the temperature where there is congestion.

Finally, keep your soul youthful by keeping abreast of the times and thinking and planning to be well. As Prentice Mulford says: "If you expect to grow old and keep in your mind an image or construction of yourself as old and decrepit, you will assuredly be so."

PART II.

CHAPTER X.

What Determines the Sex of Offspring.

THE question, "What decides the sex of offspring?" is one of peculiar interest. Closely connected as it is with the origin of life and the influence of environment, the subject presents much that is of scientific importance and has therefore been the cause of much study and speculation. It is of particular interest to parents who desire to learn what regulates the sex of their children and whether the determining conditions are such as lie within their own control.

Many theories have been advanced to explain the intricacies of sex origin, but only recent investigations, by reason of trustworthy and comprehensive research and careful observation, have approached to definite conclusions.

Dr. Eli F. Brown, in his book "Sex and Life," treats this subject exhaustively, and his conclusions are eminently worthy of respect. Undoubtedly, he says, there are certain natural causes, operating in obedience to immutable vital laws, which decide the sex of offspring. In the human being, as in all of the higher classes of animals, this decision is reached at such an early period in the development of the embryo that observations for ascertaining the causes and conditions which make the young being become male or female are especially difficult. In some of the lower orders of animal life the development of the sex is delayed until a much later date in the life of the em-

bryo, and, in certain of these cases, the decision as to the maleness or femaleness is not established until the animal has lived for a considerable time as a separate individual. For these reasons, observations for ascertaining the causes for the difference in sex are much more simple and satisfactory in the lower beings of the vital scale than among the higher classes of animals, in which, as has been said, the conditions are intricate and the operations are obscured by their early occurrence in embryonic life.

The higher animals do not appear to be in any way exceptional in the operations of the laws which govern their existence, and in accordance with which they have their development. All animate creation, including every phase of such being, lives, grows and reproduces its kind in obedience to the same general vital laws. So true is this that there is every reason to suppose that the causes and conditions which operate in the lower orders of animals in producing differences in the sex of offspring act in the same general manner in producing like differences of sex in the offspring of higher animals, including the human being. By observations made upon the inferior animals, it is possible to discover certain tendencies in sex-determination. These tendencies may be traced with similar results into the superior orders, and serve to indicate the relations of cause and effect to be watched for and recognized in sex decision, even in the human family. It is from such study and experimentation, such careful observation and inference, that the most trustworthy explanations have been produced of the origin and determination of sex.

Sex Partially Within Parental Control.

It is proper, however, to state that, while much is now definitely known in this regard, the whole has not been ascertained. What has been fairly ascertained to be true does not place the

matter of the control of the sex of offspring within the easy command of parents; it does establish the fact, nevertheless, that the regulation of sex is within their partial control, at least.

As ought to be supposed, the production of the two conditions, male and female—on which difference in individuals the continuance of life depends—is, in great measure, self-regulating, based upon such economic laws of supply and demand in nature as are in accord with the utility of sex and the welfare of the race. Evidently, nature must maintain a reasonable balance between the sexes. If from any cause the tendency were to produce males in excess, other causes must counteract such a tendency by the production of females, and, in like manner, any excess of females must be offset by corresponding tendencies to produce males. Such appears to be the case. It would be disastrous if the individuals of either sex were largely to outnumber those of the opposite sex, and it would be absolutely fatal for either sex to cease to be produced. It will be found, therefore, that the regulation of sex is a matter of such concern that its decision is not left to the whim, caprice or carelessness of the parent, but is founded so deep in the conditions and interests of life that it is quite beyond human agency to alter, even in individual cases. It is possible, however, to recognize the general laws which tend to regulate sex, and possible, also, by conformity to their operations, to realize a desired result through their natural agency.

Each individual among higher animals, whether male or female, begins as an impregnated ovum in the mother's body. Any such ovum contains elements of constitution from both of its parents. In the earliest existence of this impregnated ovum, there is a season of sexual indifference, or indecision, in which the embryo is both male and female, having the char-

acteristic rudiments of each sex, only indifferently manifested. In this stage, the embryo is susceptible of being influenced by external conditions to develop more strongly in the one or the other direction and thus become distinctly and permanently male or female. It is evident that this is the season in the development of the individual in which influencing conditions and causes must operate in deciding its sex, although it is possible in some of the lower animals to alter the tendency of sex in the embryo from one sex to the other, even after it has been quite definitely determined.

Sex Tendency in the Embryo.

It is well established, in fact, that differences in sex do not come from a difference in the ova themselves; that is, there is not one kind of ova from the female which becomes female, while other ova become male, for it is possible to alter the tendency toward the one sex or the other after the ovum has been fertilized and the embryo has begun its career of development. This possible change in sex tendency in the embryo also proves that sex is not decided by a difference in the spermatozoa; that is, some of the sperm cells from the father are not male, while others are female, in their constitution.

It is incorrect to suppose, as has been held by some theorists, that one testicle gives rise to male sperms and the other to female sperm cells, for both male and female offspring have been produced from the same male parent after one testicle or the other has been removed. The same is true in cases in which either ovary has been removed from the mother; that is, male and female offspring are produced from mothers in whom either ovary has been removed. In like manner, the sex of offspring is shown not to be materially affected by the comparative vigor of the parents; thus a stronger father than

mother does not necessarily produce one sex to the exclusion of the other. These negative decisions are important because they simplify the solution of the problem of sex-determination, by excluding, more or less fully, various causes which have been supposed to operate quite forcibly in deciding the sex of offspring.

Controlling Influences in Determining Sex.

Some of the more positive agencies that enter into the determination of sex are found (1) in the influence of nutrition upon the embryo during its indifferent stage of sexual development, and (2) in the constitution and general condition of the mother before and during the early stages of pregnancy. These two factors appear to enter more fully than any others into the decision of the sex of offspring, and deserve the greatest consideration in this treatise. The influence of food in supplying the embryo with nourishment for its development is, perhaps, the most potent of these determining causes.

The effects of nutrition are shown in suggestive manner in some of the lower orders of animal life, in which the conditions and results are readily observed. The classes of animals most satisfactory for experiment in this connection are such as pass through different phases of individual life before reaching the highest and most fully developed stage. The insects afford an illustration of these differing stages of individual development: (1) the egg is perfected and deposited by the fly; (2) this egg hatches into a grub or worm-like animal; (3) this grub, when fully grown, enters the chrysalis form and undergoes such complete reorganization that it comes forth as (4) the complete fly. Here are four complete and distinct stages, during which periods the sexual function and development are more or less delayed until the preparation of the in-

sect for its fourth stage, and the tendencies toward one sex or the other may be repeatedly changed from one to the other, during the earlier stages of the individual, by the influence of more or less favorable vital conditions. Frogs present another series of changes, which make them a favorite means of experimentation; thus the frog perfects and deposits (1) the spawn; this spawn hatches into (2) the tadpole, which, after a season of development and life as a tadpole, gradually becomes transformed into the highest phase of the individual's life, (3) the frog. Here are three forms of life in the same animal, quite distinct from one another, each being preparatory to the next in the scale. Complete sexual function is necessary only in the highest or frog stage, and during the tadpole stage sexual development is more or less indifferent, the tendency during the life and growth of the tadpole to become distinctly and permanently either male or female being dependent in great measure on surrounding circumstances, especially so upon the influence of food, whether it be abundant and nutritious or the reverse.

Experiments Upon the Lower Animals.

Experiments upon frogs and insects tend to establish the truth of the doctrine that abundant nourishment during the stages of sexual indifference inclines to produce femaleness, while want of proper nutrition during these formative or preparatory stages inclines to produce maleness in the individual. Some of the most significant experiments for testing the influence of food in deciding sex are those made upon tadpoles. A notable case is described by Prof. Geddes,* from the experiments of E. Yung, in which, he says, "from the experi-

*The Evolution of Sex, by Prof. Patrick Geddes.

ence and carefulness of the observer, these striking results are entitled to great weight."

It appears that, in this remarkable experiment, of three hundred tadpoles, when left to themselves, the ratio of females to males was as 57 to 43. These were divided into three lots of 100 each and fed upon different kinds of nutritious diet to ascertain the change in sex-tendency due to such food. It should be remembered in this connection that the tadpole represents the stage of sexual indifference in the life of the young frog, and that external conditions may alter sex-tendencies during such period of sexual instability. The first set, in which the original ratio of femaleness to maleness was 54 to 46, were fed abundantly on beef, from which cause the ratio altered so that it became 78 females to 22 males. The second portion, in which the ratio of sex in the beginning was 61 females to 39 males, were fed upon fish, by whose more nutritive effects the ratio was raised to 81 females to 19 males. The third section, in which the ratio of sex stood 56 females to 44 males, were fed upon a still more nutritious diet, that of frogs, whereby the proportion of females was elevated to the astonishing ratio of 92 females to 8 males. Each feature of this experiment is suggestive in indicating that a rich diet, abundant nutrition, favorable conditions for life, during the season of sexual indifference in the embryo, tend to develop femaleness. In the above experiment, no less than two out of the three of all the tadpoles which were at first male in their tendencies became female.

Bees—An Interesting Example.

Another of the most interesting and suggestive examples of the effect of diet in deciding the sex of an embryo is presented in the case of bees. In keeping with other insects, the bee develops through different stages of individual life. The eggs

are formed and deposited by the mother-bee; these hatch into larvæ, which, by proper growth, development and transformation, become bees. Three kinds of bees, the queen, the workers and the drones, are produced from the larvæ; they exist together as the related members of the colony, and perform the various duties of the swarm within the hive. The queen is the perfect female, the only one of all the number capable of being the mother of a generation of offspring. She is the largest and most fully developed, and, by reason of her larger size, her finer appearance, and her superiority in other respects, is fitly recognized as the queen. The workers are the small, active bees, through whose diligence and sagacity the honey is collected, the comb is fashioned, the young are fed and the colony is protected from dangerous intruders. These workers are imperfect females, incapable of producing eggs. The drones are the male bees; they originate from unfertilized eggs of the queen, and perform no other function in the life of the colony than that of fertilizing the ova of the queen. They live a comparatively short and inactive life, and, having performed their special sexual function, they are stung to death by the workers and thrown out of the hive.

The facts of greatest interest in regard to this curiously organized colony, or family, are such as concern the differences between the queen, whose motherhood is complete, and the imperfect female workers. The queen bee is produced from a fertilized egg which is deposited in a cell sufficiently large to admit of the superior growth of the larva which hatches from it; this larva is fed with "royal diet." This "royal diet" consists of the most nutritious and stimulating bee-food, gathered and preserved for this special purpose of serving as the nourishment for the baby queen. By reason of these more favorable conditions of room and food, the larva

becomes perfected in its development so that it finally becomes the queen in size, appearance and function. The workers are produced in like manner from fertilized eggs, but the larvæ from these eggs are restricted to smaller cells for their growth, and limited to the ordinary bee-food. The result is they are dwarfed in size, and, though female insects, they are incapable of performing the crowning function of the female—they produce no eggs.

The Effect of "Royal Diet."

Now, it so happens at times that some of the larvæ, which would otherwise become workers, receive by accident crumbs of "royal diet," and such is the effect of this richer food upon the larvæ which receive it that they grow to an extra size, and may even become fertile workers. Certain it is, too, that the nurse-bees often select larvæ which would otherwise become the dwarfed female workers, and feed these larvæ fully upon the "royal diet." By such means, these well-fed larvæ become young queens. Thus it is that "royal diet" determines that a larva, fed upon such food, shall become a queen, fully endowed with motherhood, while the larva nourished by the ordinary bee-food produces a sterile worker.

In this case it appears that fully developed femaleness is due wholly to the effect of an abundance of suitable food and other favoring conditions during the season of sexual indifference which exists in the larva, and that the fate of the female embryo, whether it shall become a queen or a worker, is determined within the first few days of its larval life, by the effects of the kind and degree of nourishment it receives.

This is in exact accord with the results of the experiment already described in regard to the effect of food in determining the sex of frogs, and tends quite forcibly and conclusively to

establish the principle that favorable conditions of food and opportunities for growth tend to produce the high degree of development in the embryo which results in a female offspring. It is fair, too, to infer that femaleness, with its wonderful capacity for maternity, is a higher phase of development, due to and determined by superior conditions of embryonic life.

What is here given in regard to bees is true in the same sense with other kinds of insects. Thus caterpillars which are poorly fed before entering the phase of the chrysalis come forth as male butterflies, while such as are abundantly fed, and which enter the chrysalis in a high state of development, become female butterflies.

The Higher Orders of Animal Life.

In the higher animals, the mammals, in which class the human being is included, the embryo is retained within the mother's body until it has developed into a being like herself and is ready to be born alive and be nourished by her milk. The changes in its growth, corresponding to the different stages through which the insect and frog pass, are performed in the hidden conditions of her body; hence, it is not possible to observe so definitely the effects of favorable or unfavorable vital conditions in determining the sex of offspring from the mammal. Following the indications derived from experiments with the lower animals in which it is convenient to watch the effects of certain external causes, it is possible to observe with a fair degree of certainty the influence of food, temperature, shelter, comfort and quietude, in deciding the sex of the young of the upper divisions of the vital scale. Results of interesting character are reported from experiments made upon sheep and other mammals.

Experiments upon Domestic Animals.

A collection of three hundred ewes was divided into two lots, of one hundred and fifty each. The first division were extremely well-fed, and were attended by young rams; as a result, the sex of the lambs produced was in the ratio of 60 females to 40 males. The second division were sparingly fed and were associated with old rams, in which case the ratio of sex of offspring was 40 females to 60 males. It was also a noticeable fact that the heavier ewes, such as showed fuller development and the happier effects of favorable conditions of life, produced chiefly female offspring.

Other experiments of similar kind made upon domestic animals tend also to establish the conclusion that with the superior animals, as well as with the inferior orders, favorable conditions of life for the mother, as regards food, shelter, temperature, quietude and contentment, tend to produce femaleness in her offspring, and that reverse conditions tend to produce maleness.

The Female the Superior Organism.

In order to produce offspring, a mother must be properly developed in sexual function. Undoubtedly, female parents make a more serious productive sacrifice in bearing young than is required of male parents. To be capable of such sacrifice as is demanded of the mother, and thereby be fully female, requires a high degree of vital development of the embryo and offspring that is to become a female. In order to establish its sex as a female, correspondingly superior conditions for development are necessary during the formative period in which its sex is decided. In this connection, the female appears as the superior organism, complete in its own endowment for individual life and capable of reproducing its

kind, needing at most only the fertilizing element from the male, and, in many of the lower orders of life, not even requiring a fertilizing germ, but fully competent of itself to produce its young. "Royal diet" for the larva of the bee determines the complete motherhood of the queen-bee. The best external conditions for the embryo frogs decide the greatest ratio of femaleness in adult frogs. The most favorable conditions of ewes during the season of conception and early pregnancy beget the largest number of female lambs. In general, it is reasonable to infer that the higher sexual organization which constitutes the female is to be attained in the greatest number of cases by embryos which have superior vital conditions during the formative sexual period.

Some Significant Facts.

Among human beings, some facts of general observation become significant in the light of the foregoing inferences. After epidemics, after wars, after seasons of privation and distress, the tendency is toward a majority of male births. On the other hand, abundant crops, low prices, peace, contentment and prosperity tend to increase the number of females born. Mothers in prosperous families usually have more girls; mothers in families of distress have more boys. Large, well-fed, fully developed, healthy women, who are of contented and passive disposition, generally become mothers of families abounding in girls; mothers who are small or spare of flesh, who are poorly fed, restless, unhappy, overworked, exhausted by frequent child-bearing, or who are reduced by other causes which waste their vital energies, usually give birth to a greater number of boys.

As a general proposition, the foregoing facts and inferences tend to establish the truth of the doctrine with women, that,

the more favorable the vital conditions of the mother during the period in which the sex of her offspring is being determined, the greater the ratio of females she will bear; the less favorable her vital conditions at such time, the greater will be her tendency to bear males.

That many apparent exceptions occur does not disprove the general tendency here maintained. Moreover, it is impossible to know in all cases what were the conditions of the mother's organism at the time in which her child was in its delicate balance between predominant femaleness and maleness; else many cases which seemingly disprove the proposition would be found to be forcible illustrations of its truth. Still further, it is probable that other causes besides those here mentioned act with greater or less effect in determining the sex of offspring.

Woman's Rank in the Scale of Vital Being.

The doctrine herewith deduced that the female offspring is the more highly organized, though differing from notions current in the minds of some persons who are imbued with the idea that the male is the perfect type, is in accord with the plan of reproduction of vital bodies throughout the entire world of living beings. In the plant kingdom, that for which all other parts of the plant exist, that to which all other portions are subservient, is the pistil, or female organ of reproduction, a part which it is the crowning function of the plant to perfect, a part which is the most complex, most highly organized and most precious. In the lower orders of animals, the female organism usually shows its superiority in its greater size and fuller development, as well as in its capacity for producing young beings. The ability to reproduce perfect beings as offspring is of itself the strongest evidence of the superiority of

RUTH—Ch. Landelle.

THE AWAKENING—N. Sichel.

the female. Among insects, birds and mammals, the female is usually of larger size, and, though often less attractive in appearance and less demonstrative in habit, she is more passive in disposition, more complacent and happy in temper. While greater stature and greater muscular development often accompany the more pugnacious and restless spirit of the male, such differences do not necessarily argue that the male is the more highly organized or more nearly perfect. These differences, when they exist, are in great measure due to the fact that the animal is male, and, having less organic sacrifice to make in other respects, has more muscular development, which is increased by his more restless and unsatisfied constitution.

As has been said, the capability of producing offspring is a sufficient evidence of perfect organization in the mother, and shows, too, that she possesses a requisite surplus of vital energy and organic power to endow her child with life, both of body and soul. That woman possesses higher nervous sensibility is evidenced in her finer delicacy and refinement, in her acuteness to mental impression, and in her keener and surer moral sense. Man is less complex. He makes less sexual sacrifice. He is not compelled to hold in reserve a surplus energy sufficient to equip a new life with being. He has more to spend in his own muscle, brain and brawn. He may, therefore, excel in strength, in stature and in intellectual attainment; but such features of excellence are not necessarily an evidence that his organism is more complex, more refined, more perfect than woman's. Greater muscular and intellectual power accord with the restless life of the male, and fit him for dominion over brute force, but such endowments pale in significance when contrasted with the exquisite sensibility of woman, whereby she is fitted for maternity, gifted with a creative art and power capable of making men and women.

Woman's motherhood, whereby the race is continued and its higher destiny is evolved, caps and completes the exalted rank maintained by the female element throughout the entire scale of vital being.

PART III

CHILD-CULTURE

THE PHILOSOPHY OF EDUCATION, TRAINING AND CHARACTER-BUILDING.

"The truth shall make them free."

PART III.

CHAPTER I.

The Foundation of Moral Uprightness.

STERLING worth in character is all that is really of importance. Given that, a child to maturity grown is equipped for encountering all the obstacles of life, which are, after all, designed by the great Cause for the purpose of developing him.

The beginning of child-culture lies, of course, with parents, that the child is desired, designed and loved into life. Then in pre-natal culture. And when old enough and the impelling power within sends the small one on the quest for knowledge, to meet him with candid honesty in answer to all his questions. Honesty has been said to include all the other virtues. Certainly eager little ones should meet nothing else in the home.

Confidence between parents and children must begin in infancy, and should never cease. The child will have its own life to live, its own powers to realize; but the relation parents and children bear to each other makes companionship between them of especial value. No confidence from the unfolding child should be met with ridicule or coldness.

Knowledge as to the origin of life will be sought as unconsciously as that on any other line, and as naturally. All around is to be seen the phenomenon of new life appearing where before life was not, and this demands explanation.

The matter would be reduced to simplicity if all parents and teachers of infancy themselves understood the integrity of creative life. What is cherished with the reverence due any great fact in nature cannot be misrepresented nor ignored.

The Truth Should be Taught.

The relation of the sexes, while tacitly ignored in ordinary conversation, is really kept in the consciousness of people by a system of jesting everywhere to be noticed. Tiny tots scarcely able to walk alone are told of sweethearts and beaux, and from that time on the most sacred of human relationships is treated with irreverence and innuendo by people who would be shocked to be told that only truth should be taught.

The following words by an earnest woman describe a condition:

"Young men and women, girls and boys, and little children, have been taught falsehoods when they have been taught anything about the most intimate facts of their physical being and their most important relations to each other. Ignorance, we have assured them, is most praiseworthy; knowledge is destructive of innocence; the truth is a guilty secret.

"They have become possessed, as we knew they would, of knowledge, partly instinctive, partly obtained from clandestine sources; and in this knowledge—if we dare to dignify by that name the illicit mass of hint and hearsay and half formed opinion—every fact known or inferred is smirched with secrecy, deception and suggestion of evil. The lie which is half a truth is ever the blackest of lies. What is it here, where, distorted, foully bespattered and stained with sensuality, it yet is enveloped in the vague fascinations of a pilfered pleasure?"

Knowledge Makes Pure.

In answer she says further: "It is knowledge alone that can maintain in our young people the very virtue for the preservation of which we have preached ignorance; knowledge alone that can induce in them the love of innocence and of her infinitely nobler and sweeter elder sister, purity."

The sense of shame common in connection with thought on the subject of sex proclaims there has been perversion—inherited or acquired through wrong training or no training. A little child knows no shame. For that reason his direct questions must be met with frankness. To the wholesome mind there is nothing in truth to cause a blush, harm being due to perversion.

Perhaps the very beginning of child-training along these lines lies in never trying to hide the sweet dimpled body as if some part of it is unfit to be seen. If the little five-year-old brother is accustomed to see the baby sister in her bath or have his bath at the same time, that fact will insure him against any prurient curiosity on the subject; vice versa. If from young childhood they have seen pictures and statues of the chaste nude in art, no blush will ever mantle cheek or brow. What they have been accustomed to is a matter of fact, and will never excite unholy emotions. For, after all, impurity exists only in the mind. A wee four-year-old girl on seeing a nude female figure in marble said: "Lady, you better get your dwess on; you might get cold." Her idea of clothing was chiefly one of utility.

As to instructions as to the nude in art, a prominent thinker says: "Wise parents will simply assume the perfect innocence of the artistic representation of the nude, just as they will

assume the innocence of the unclothed body. That the human figure should be painted on canvas and represented in marble and bronze just as it is the child will take for granted, unless his mind has been poisoned." This experience will prove to be true.

Modesty and Prudery Contrasted.

Even in this day it is not uncommon to meet women who actually boast of never having been wholly nude since they can remember. Their minds are so charged with prudery they are horrified to think of being alone with their own unclothed bodies. They never suffer from fear or shame who are protected by the invulnerable moral panoply of modesty and intelligence. Modesty is purity of thought and feeling, whereas prudery is *affectation* of that virtue which relates to sex cleanness.

Lady Cook makes the following distinctions:

"Prudishness is not modesty, for has not some one rightly said 'the over-nice are those of nasty ideas'? Chastity is not modesty, for many who are chaste are not so from choice. A person may be both prudish and chaste and yet not truly modest. * * * Modesty, like love, thinketh no evil; it also subdues evil thought in others.

"I once observed some young women arriving unexpectedly in a gallery upon a group of nude statues. They gave one good look, then screamed and fled as if pursued by savages. The immodesty that alarmed them was not in the statues, but in their own impure minds. It was an observation of the great Flaxman that students entering the academy where they studied from the nude figure seemed to hang up their passions with their hats. Their familiarity with

natural beauty led them only to inform their minds and purify their tastes."

Fear and shame are the offspring of ignorance.

Cleanness and Morality.

After assuming the purity of the unclothed body, perhaps a second stage for inducing moral uprightness is physical cleanliness. Where this is not looked after there are sometimes morbid conditions which have a reaction on the temperament. Any uncleanness about the private organs will create irritation, to allay which the child rubs the parts. From this the habit of self-abuse has been known to be engendered. Constipation and pin-worms are also sources of irritation. In health of mind or body consciousness is beyond the realm of self; sensation is a symptom of disorder. Any thought or act for the direct purpose of pleasing physical sensation is a thought or act of debasement or prostitution. The body is an instrument through which the soul, or Ego, draws experience for perfecting the individual, and is not of itself to be catered to.

Physical cleanliness is obtained by the use of (1) water internally and externally; (2) wholesome food which shall nourish the body in addition to pleasing taste; (3) pure air in abundance; (4) thinking clean thoughts. These agencies have an interaction: cleanness in one phase stimulates activity in others. Of course, parents who do not know the virtues of cleanliness cannot inculcate the principles in their children. It is true that self-development is the only kind, but wise parentage supplies the environment in which the child gleans its education, physically, mentally, morally. When the unfolding intelligence is impressed by word and deed of the benefits of order, cleanliness, abundance of fresh air, pure,

nourishing food, and the value of the bath, these things are treasured up to be proved out by experience. "We are what we are on account of the thoughts we have thought and the things we have done," says the sage of East Aurora. In childhood, when the foundations of character are being laid, it is very essential that the trend of character be started in the direction of wholesomeness; so that the thoughts of the child and the things he does shall be of future value to him.

The Will and its Guidance.

The will of the child is an endowment of such vital importance to him and all to whom he bears any relation, its recognition and guidance is one of the imperative duties of parents. Under the old patriarchal regime the younger members of the family must, justly or unjustly, submit to the will of the elders. Where there was rebellion parents might use force. "That stubborn will must be broken," was an expression very common. This most unpardonable procedure has rendered many a person lacking in self-reliance.

Felix Adler said: "The will may be compared to the *power* which propels a ship through the waves; feeling is the rudder, the intellect is the helmsman." A strong will, most valuable for its propelling power, must still be guided in the direction of right. It has the power of encompassing its own ends, but unless those are goals of good the person is that sure to work his own destruction. In the same manner, according to the same law, any force that is for good misapplied becomes a damaging force. The normal will-power needs only good environment to unfold. Weak wills need cultivation on every hand. To quote Prof. Adler again: "Suppose a person of weak will is hungry. He knows that gold will buy food. Incapable of a long and complex method

of attaining his end, he stretches forth his hand and takes it where he finds it. The man of weak will who has a grudge against his rival is not capable of putting forth sustained and complex series of efforts by laboring to outstrip his rival. He gives free and immediate rein to his passion; he draws the knife and kills. The man of weak will who burns with sensual desire assaults the object of his desire. The virtues depend in no small degree on the power of serial and complex thinking. To strengthen the will, therefore, it is necessary to have the power to think connectedly, and especially to reach an end by long and complex methods."

The Influence of Manual Training.

In the training of wills naturally weak the same writer recommends manual training. Of this he says: "There are influences in manual training upon virtue. Squareness in things has a relation to squareness in action and in thinking. Truthfulness—that is, exactness—in work predisposes to truthfulness in speech, thought and action. If the work be artistic it is refining and elevating."

When it is noticed that a child is pliable to every influence with which he is brought in contact, he should be the more closely studied to see if the readiness to yield is due to natural unselfishness or to lack of will. If he is defective in purpose, no opportunity should be left unused to cultivate it. A child forced or driven is made irresponsible even when natural tendencies are normal. Growth of character should always be under the influence of the sense of love, guided by wisdom. Hannah Whitall Smith says: "Compulsion is an attempt to manufacture the fruit without planting the seed."

A child needs to be assisted in the formation of good habits, but to excite his antagonism by arraying his will against that of the parent is the most objectionable of means to be used.

"Resist not evil and it will flee from you. Overcome evil with good." A dark room is not illuminated by scooping out the darkness in shovelfuls, but by letting in the light. Evil or undeveloped tendencies are done away with by positive culture of the good. Let child-life be filled with comfort, interest, amusement, and his little work or duty, and unless there are too strong inherited whims he will not need curbing. As a Yale professor said with reference to older people, "If you tear down the little shrine where men have been wont to worship, they will resist you; but if by its side you erect a noble temple, they will abandon the old structure." If you want a little child to abandon anything that threatens to become a habit present him something better, and he will accept, because all development is toward good.

Obedience and the Rule of Love.

Obedience in the family should never be arbitrary, but be the result of a desire to oblige one who is beloved. Disobedience is taught more often than its benign original virtue, obedience, by the promiscuous manner in which don'ts are used. Positive, not negative, training is the need of child-life—that training, while avoiding the undesirable, merely points to the desirable. Obedience is, after all, just conformity to law. When parents are wise strict obedience is always for the best. But who among parents are sure of their own infallibility so as to exact it implicitly? After a child is several years of age it is right to leave matters occasionally to his sense of discrimination, after pointing out the reasons for avoiding any given act. The spirit of truth expresses itself through every individual in whom its passage is not clogged by the debris of error. Teach the child early to listen to the voice within rather than external influences, and thereby

he may become self-reliant. It is not for long the child is to be yours, O parents; and the best service from you to him is that which will enable him to be strong within himself. Then you can trust him to go through the fires of temptation, because you know he has the best shield possible to be obtained. When he knows the pursuit of worthy activity will consume the energy that might otherwise express itself in pleasing the physical, he will have to expend no strength resisting temptation. This rule applies to male and female alike.

The Sacredness of Sex.

Teaching the origin of human life is the province of parents or those whose business it is to care for the young in the absence of parents. "The facts of sex are not to be received with downcast eyes and blushes, nor with jests and innuendoes," writes a social purity worker, "but with a reverent recognition of their sacredness. Through sex come to us all of the sweetest ties of life. Because of sex we are fathers, mothers, husbands, wives and children, and through these relations come the joys of home. The knowledge of sex, its powers and influence should be purely imparted; the fact of sex should be reverently accepted, and men and women, comprehending the fatefulness of their own deeds in regard to sex, should hold themselves in chastity of thought as well as act."

Teaching the Origin of Life.

There is hardly a time to be set when the knowledge relating to the origin of life may not be taught. The wanting to know appears more early in families where the babies follow each other rapidly and in neighboring families where there are young witnesses to the mystery of life. When the

mind is too immature to trace the process of generation through plant-life, through fowls and the higher animals to the human, there is probably no answer which will apply to the query, "Where did the baby come from?" so well as to say, "It grew inside its mother's body, as all babies do." This will start a volley of other questions bearing on the subject, but, once having begun, the parent must never waver in frankness and reverence, and all the time must be cultivating skill and delicacy; for it is a lesson, once begun, that has no ending. Maturity will have brought the child power to think for himself, but there should never be a time he will not feel free to discuss any vital subject with his parents.

After the discussion is opened the hows and whys and wherefores will come for consideration. As a basic principle the inquirer may be told that the law of God or Nature is that all new life must be started from a father and mother principle; that everything that grows has its father and mother. The capacity for understanding is of slow growth, and much to be said will need saying over and over again. Always remember, parent, that weeds of thought are almost self-sown, and if you do not sow the good seed it is at the peril of your child's moral strength.

If your instruction has started from the human, you can go through the descending scale, through the animal to the vegetable kingdoms, and demonstrate the truth of your first assertion. Enlarge his views on every possible occasion. Let him have pairs of fowls—pigeons, or chickens, or ducks—where under his guidance young may be reproduced. With your own reverent supervision the wonder of the mystery of life will appeal to the best that is in him. To see what was an egg one day open and release a fowl is no small matter; it is one of the direct ways in which creative life speaks to us.

In the kingdom of the lower animals, as Mrs. Scammon says, "Here they will learn the *use* and not the *abuse* of the procreative faculties. They will observe the manifestation of instinct unguided by reason, and may be led to recognize in themselves the power of reason to guide and govern instinct."

A boy of eleven, spending the summer in the country, where the processes of generation and birth are to be seen on every hand, witnessed the manifestation of unreasoning instinct among the cattle. The cows, being in heat, without regard to barriers of wire fences, jumped over, lacerating themselves in the effort to get to the bull. When they were returned to the pasture the same performance was repeated by the bull. The child did not see the copulative act, it so happened; but his mother made use of the circumstance he did witness to talk with him on the propagative instinct. Animals, she told him, have to obey; they have no reason by which to be guided. Human beings are endowed with the same instinct to multiply and replenish the earth, but intelligence is, or should be, the directing power. A young man or woman may sense the creative instinct, but knowing they are not in position to be fathers and mothers, make use of the power in the creation of work; in learning lessons, in games, in exercise, in hundreds of ways by which they themselves are made strong. In the generation of offspring this excess of energy is lost to themselves because given to another.

This child and this mother have always been confidential friends, and this talk was but one of the series begun when he was three or four years of age, and he is loving and loyal and understands. When these inquiries do not begin early, still the growing intelligence should be fortified all that is possible against the time they shall be made.

In vegetable life the planting of seeds and the growth of stalk, branch, flower, fruit and seed may be made to serve as groundwork for the knowledge that must not be omitted from any intelligent child's training. Perhaps his attention will have to be turned toward the vegetable kingdom; but once its wonders and glories have been pointed out, the young mind will go on of itself, always looking for help on knotty points from parents or teacher.

The nurture of the seed in the moist soil, the loosening about the sprout, keeping out weeds, etc., bear analogy to his own life, and good mothers can make use of it. The flowering-time of the plant is the love-time—the time for the blending of the male and female elements necessary for endowing the seed with growing powers. That part of the seed which grows is, in botany, called the *embryo,* just as is the union of male and female germs in the human so called at first. To this embryo the seed, fruit and flower are subservient.

Sex in Plant Life.

For the convenience of mothers who wish something at hand on the fertilization of flowers the following, from Prof. Campbell's botany, is inserted:

"If we compare the flowers of different plants, we shall find almost infinite variety in structure, and this variation at first appears to follow no fixed laws; but as we study the matter more thoroughly we find that these variations have a deep significance, and almost without exception have to do with the fertilization of the flower.

"In the simpler flowers, such as those of a grass, sedge or rush among the monocotyledons, or an oak, hazel or plantain among dicotyledons, the flowers are extremely inconspicuous and often reduced to the simplest form. In such plants the

PETRUCCIO—Helene Richter.

A TEMPEST IN A WASH-BOWL—T. Lobrichon.

pollen is conveyed from the male flowers to the female by the wind, and to this end the former are usually placed above the latter, so that these are dusted with the pollen whenever the plant is shaken by the wind. In these plants the male flowers often outnumber the female enormously, and the pollen is produced in great quantities; and the stigmas are long and often feathery, so as to catch the pollen readily. This is very beautifully shown in many grasses."

(Pollen, it will be remembered, is the fertilizing element

CHERRY BLOSSOMS.

The sexual organs of the cherry tree are its blossoms. Each flower has both stamens and pistils.

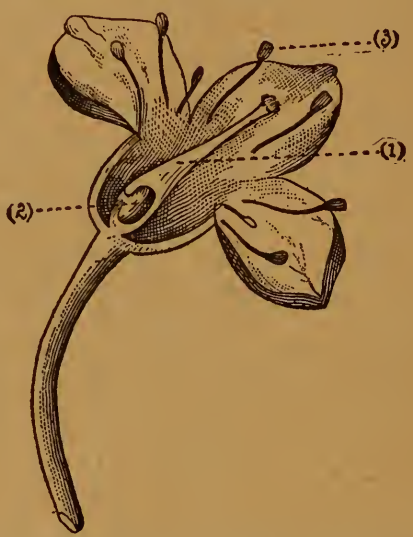
produced by the anther, the male part of the flower. Usually there are four pollen sacs in a single anther.)

"If, however, we examine the higher groups of flowering plants, we see that the outer leaves of the flower become more conspicuous, and that this is often correlated with the development of a sweet fluid in certain parts of the flower, while the wind-fertilized flowers are destitute of this as well as of odor.

"If we watch any bright-colored or sweet-scented flower for any length of time, we shall hardly fail to observe the visits of

the insects to it, in search of pollen or honey, and attracted to the flower by its bright color or sweet perfume. In its visits from flower to flower, the insect is almost certain to transfer part of the pollen carried off from one flower to the stigma of another of the same kind, thus effecting pollination.

"That the fertilization of a flower by pollen from another is beneficial has been shown by many careful experiments which show that nearly always, at least in flowers where there are special contrivances for cross-fertilization, the number of



THE PARTS OF A CHERRY BLOSSOM.
A section through a single flower. (1) Pistil. (2) Ovule. (3) Stamen.

seeds is greater and the quality better where cross-fertilization has taken place than where the flower is fertilized by its own pollen.

"At first sight it would appear that most flowers are especially adapted for self-fertilization; but in fact, although stamens and pistils are in the same flower, there are usually effective preventives for avoiding self-fertilization. In a few cases investigated, it has been found that the pollen from the flower will not germinate upon its own stigma, and in others it seems to act injuriously. One of the commonest means of avoiding

self-fertilization is the maturing of stamens and pistils at different times. Usually the stamens ripen first, discharging the pollen and withdrawing before the stigma is ready to receive it.

"In many flowers the stamens, as they ripen, move so as to place themselves directly before the entrance of the nectary, where they are necessarily struck by an insect searching for honey; after the pollen is shed, they move aside or bend downward and their place is taken by the pistil, so that an insect

POLLEN FALLING FROM THE STAMEN.
The stamen, producing the pollen cells, is the male organ.

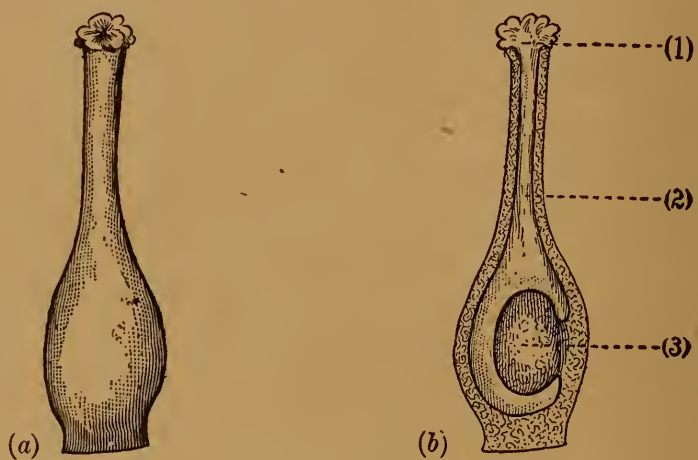
which has come from a younger flower will strike the part of the body previously dusted with pollen against the stigma, and deposit the pollen upon it. This arrangement is very beautifully seen in the nasturtium and larkspur."

* * * "It will be found that the character of the color of the flower is related to the insects visiting it. Brilliantly colored flowers are usually visited by butterflies, bees and similar day-flying insects. Flowers opening at night are usually white or pale yellow, colors best seen at night, and

in addition are very strongly scented so as to attract the night-flying moths which usually fertilize them. Sometimes dull-colored flowers, which frequently have a very offensive odor, are visited by flies and other carrion-loving insects, which serve to convey pollen to them."

When Nature has made such elaborate arrangement for propagation of the species, what is man that he should look down upon the law as expressed in himself?

In the lowest forms of life in both vegetable and animal



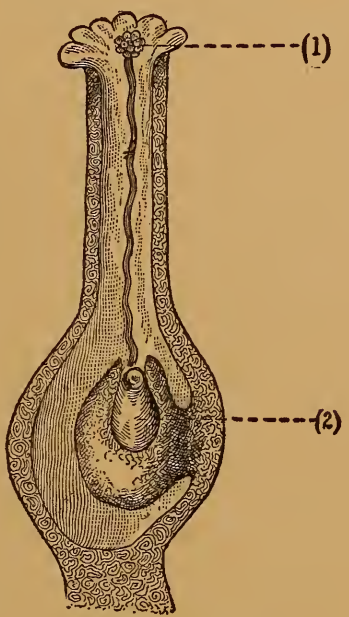
THE PISTIL.

The pistil, producing the seed, is the female organ. (*a*) External view. (*b*) Section—(1) Open mouth of the tube. (2) Passage to the ovary which contains (3) the ovule.

kingdoms reproduction is attained by a splitting or division of the parent cell, each division growing to the size of the original. As the quality of life improves, only certain divisions have reproductive power. The following from Alexander enlightens on the process of differentiation:

"In those asexual animals which are only so far differentiated as to have the reproductive cells distinct from those producing tissues, the reproductive cells are usually to be found together in one place and developing in connection with a special gland. And when sex differentiation begins both kinds

of sex cells are first found developing in the same gland. Then the two kinds are developed alternately; the one kind at one period in the life of the individual and the other kind at another time from the same gland. Then there are two glands, one for the development and keeping of the female cells, or ova, and the other for the male cells, or spermatozoa. Both these glands are at first in one individual and near together; later they become separated in different parts of the same



FERTILIZATION.

Diagram illustrating fertilization. A grain of pollen (1) sends a rootlet to the ovule (2), which causes the latter to contain an embryo. This corresponds to conception in animals.

animal; and finally the female cells are found in one individual and the male cells in another. When both kinds are found in a single individual it is called an *hermaphrodite;* when an individual has but one kind it is *unisexual.* Among both plants and animals are to be found these three conditions as regards reproduction, viz.: asexual reproduction, hermaphroditism, unisexuality. Most plants that we ordinarily meet are hermaphrodites, but a considerable number are unisexual,

one plant bearing the fertilizing pollen, and another the ovules, which when fertilized grow into the seed."

Natural law is always reliable; when intelligently comprehended conformity with it is gladly given, and the result is healthy, harmonious life. For every natural impulse of life there is an expression which is in consonance with natural law. It therefore behooves all practical, progressive people to discover the hidden leadings of the law that they and their children and all with whom they come in contact may be bene-

SEEDS IN A RIPE PISTIL.

A ripened pistil of the bean bursting open to permit the seeds to escape. This corresponds to birth in animals.

fited; therefore made happy by conformity. Nature is always beneficent. As the glorious Phillips Brooks said, "It seems to me there is something sublimely positive in Nature. She never kills for the sake of killing; but every death is but one step in the vast weaving of the web of life. She has no process of destruction which, as you turn it to the other side and look at it in what you know to be its truer light, you do not see to be a process of construction. She gets rid of her wastes by

ever new plans of nutrition. This is what gives her such a courageous, hopeful and enthusiastic look, and makes men love her as a mother and not fear her as a tyrant. They see by small signs, and dimly feel, this positiveness of her workings which is the glory of natural science to reveal more and more."

Life and love are facts in humankind. Repression brings stagnation, expression more abundance of power. When informed that the expression must wholly be in the reproductive system, thought determines the influx of life to that one portion of his body instead of allowing it to be diffused through the whole body. The desire for expression in the one direction cannot bring as good returns as the desire for expression in many directions. The office of the sex-power, aside from propagation of the species, is for the recuperation of the individual body which gives strength to create on all lines of activity. Creative life is positive and makes continuous demand for expression. To know the law and to do it is the acme of wisdom; in this is the true foundation for moral uprightness.

THE YOUNG PLANT.
An oak beginning to grow from the acorn. This corresponds to infant animal life.

PART III.

CHAPTER II.

The Kindergarten.

THE record of the idea of universal education was first made in the sixteenth century; although as early as the fourteenth century one of the monastic orders, known as the Brethren of the Common Life, was engaged in teaching the children of the lower classes (so-called). In England in the sixteenth century Erasmus succeeded in infusing a more general enthusiasm for culture than had ever before been known. In the German states, Luther is said to have expressed himself as favorable to universal education in a communication written during the year 1554. But these earliest suggestions dealt merely with the acquiring of Latin, and later Greek, by boys over ten years of age. The real father of the modern idea of education was Comenius (born 1592, died 1671). He urged that instruction be given by means of the native tongue and to both sexes equally; he also prepared an illustrated work for the instruction of children and a book for mothers. So much in advance of the day was he, he demanded that everybody be instructed in the sciences and the various handicrafts of the day; these latter ideas are only beginning to take hold at the dawn of the twentieth century.

The Great Pioneers of Education.

Comenius was followed by Montaigne, Rabelais, and later by John Locke. It was through Locke that Rousseau received

the inspiration that brought forth "Emile," the ideas from which largely influenced Europe and America. Rousseau argued that education should begin at birth and continue in all directions toward the production of a well-rounded individual. That the child should be taught to find out things and their meaning *for himself;* how to grow strong in body and be industrious; how to develop the requisite insight; *how to despise idleness and evil, and to do right;* how to be observing, self-directing, creative; how to learn the deepest truths at first hand; how to be independent. "Books are not the most important instruments of learning," said Locke; "we must educate the senses and through them the intellect;" and from this basis Rousseau elaborated his theory of training in "Emile."

Pestalozzi's work followed close upon Rousseau's. His own childhood, spent by the side of "the best of mothers," was deprived of the necessary stimulus for the development of strength. Said he, "The real life of man was as strange to me as if I did not live in the world in which I dwelt." Comparing his own limitations with the full, free life set forth in "Emile" led him to develop himself as a teacher of little children. About the year 1780 his first book, "Leonard and Gertrude," was published, and later "How Gertrude Teaches Her Children." His theory was that the young should be definitely taught from a very early age, and by means of the senses instead of being made to learn mere words and ideas, thus securing the harmonious development of the natural powers. From 1805, for twenty years Pestalozzi lived at Yverdun, on the Lake of Neufchatel, working steadily at his task of education. Here he was visited by all the noted people on the continent who were interested in education. His pupils included Ramsauer, Delbrück, Blachman, Carl Ritter, Froebel and Zeller.

What Education Did for Germany.

Fichte, the German philosopher and patriot, awakened the nation to the need of universal education at the beginning of the past century. Lange mentions him in the following words: "When, during the years of French domination, it seemed as though the death knell of German nationality had been rung, when cowardly soldiers in masses deserted their flag while the battle raged, Fichte saw that the salvation of Germany lay in the education of her sons. 'Create a nation by national education!' he cried to the princes of Germany. The princes at his exhortation appealed to the people, and freedom from a foreign yoke was their reward. Not Blücher, not Schornhorst, but Fichte, drove the French from the Fatherland. Fichte's deepest conviction was that the idea of the perfect state could only be realized through education. 'The reasonable state,' says he, 'can never be formed from existing material by artificial means; it must be evolved from the consciousness of an educated people.'"

It is most largely due to the German agitation during the last one hundred years that the science of education, or pedagogics, came into existence.

The philosophy of Immanuel Kant colored the thoughts of leaders on many lines. "To-day we live in a world where everything great and small owns his influence," says Miss Blow.

The Influence of Kant's Philosophy.

"Through its influence upon the willing mind of Schleiermacher, the reluctant mind of Frederick Maurice, and the hostile mind of Cardinal Newman, the philosophy created by Kant, and developed by his successors, has leavened the theologies of Germany, England and Rome. Through Goethe and

Schiller it has stamped itself upon German literature. Through Coleridge and Carlyle it has penetrated English literature. Through New England transcendentalism it has become a power in American literature. Through the music of Wagner and Beethoven it has stirred in all susceptible souls lofty and mysterious emotions. Through Schelling, Oken, Carus, Oersted and others it has laid its magic touch upon natural science. Last of all—but, if there be truth in the parable of the mustard seed, perhaps not least of all—it has bent itself to the lowly service of childhood, and, using as its instrument the mind of Froebel, is visibly transforming the nurseries and infant schools of all civilized lands.

"When Mr. Olcott was asked to define transcendentalism, he answered promptly, 'It means there is something in the mind that did not get there by the senses.' This definition suggests the point of departure for modern speculative philosophy. Kant could not believe that 'all knowledge consists of impressions of the senses and the faint images of these impressions called up in memory and thinking.' "

Frederick Froebel became deeply imbued with the thought of oneness or unity throughout the universe from reading after those philosophers of his time who elaborated that idea. And it is only by looking at the first principles from which he reasoned that we are enabled to understand his system of education. Says Miss Blow: "The insight that spirit is the sole reality, that this Absolute Spirit is God, and that all beings possess life and mind in so far as they participate in God, is the key to all those passages in Froebel's writings which refer to what he calls the fact of life-unity and the process of life-unification."

Froebel's "Education of Man."

From the opening paragraphs of Froebel's "Education of Man" we take the following sentences:

"In all things there lives and reigns an eternal law. * * * This all-controlling law implies—as its source—an all-pervading, energizing, self-conscious, and hence eternal unity. * * * This unity is God. From God all things have proceeded. In God all things subsist. The essential nature of any given thing is the God-like principle within; the destiny of all things is to unfold the divine essence and thus to manifest God. * * * The destiny of man as a rational being is to become conscious of the divine essence and to reveal it in his life with self-determination and freedom. * * * To recognize the workings of this universal divine principle in nature and humanity is science. * * * To discern its bearings upon the development of rational beings is the science of education. * * * To apply it practically to all kinds of individuals in all stages of development is the art of education. * * * To lead the pupil to its conscious revelation is the goal of education."

"From every point, from every object in nature and life, there is a way to God."

"The things of nature form a more beautiful ladder between heaven and earth than that seen by Jacob. * * * Not in dreams is it seen; it is permanent; it surrounds us on all sides. It is decked with flowers, and angels with children's eyes beckon us towards it; it is solid, resting on a floor of crystals; the inspired singer David praises and glorifies it."

"If we seek the inner reason for this high symbolic meaning of the different individual phenomena of nature, particularly in the phases of development of natural objects in re-

lationship to the stadia of human development, we find it in the fact that nature and man have their origin in one and the same eternal Being, and that their development takes place in accordance with the same laws, only at different stages."

"Everything is of divine nature, of divine origin. Everything is, therefore, relatively a unity, as God is absolute unity. Everything, therefore, inasmuch as it is—though only relatively—a unity, manifests its nature only in and through a triune revelation and representation of itself, and there only in and through continuously progressive, hence relatively all-sided, development."

"This truth is the foundation of all contemplation, knowledge and comprehension of nature. Without it there can be no true, genuine productive investigation and knowledge of nature. Without it there can be no true contemplation of nature leading to insight into the essential being of nature."

Froebel's application of the philosophy of his time is what makes him an original and unique character.

The Phenomena of Child Nature.

In his introduction to the Commentaries on the Mother-Play he says to mothers:

"What, then, are the phenomena through which the nature of your child reveals itself? What can there be other than the phenomena present wherever an invisible unity of essence manifests itself in form, whether it be in the realm of plant life, of animal life, or of human life?

"Compare the seed and the egg with the full-grown plant and the fledged bird. Study the analogous development of feeling and of thought. Out of the indefinite the definite is born. The indefinite is the husk of a rich kernel of life. Watch this inner life as it struggles for expression in the

swelling buds on the trees, in the growth of young animals, in the impulses of infancy. It will rejoice you to behold the life of your child overflowing in activity. It will rejoice you none the less to observe his susceptibility to the incitement which the life outside of him offers to his own. Like young plants and young animals he responds to the subtlest changes of light and heat. Akin to his susceptibility is his excitability. The strings of his soul vibrate responsive to the lightest touch. Even so the tender plantlet and the unfledged bird are so affected by almost imperceptible influences and modified by the least change in their environment.

"Too often the susceptibility and excitability of your child bring grief both upon him and upon you. Nevertheless, it is through them that, like the germinating seed and the growing bird, he attracts to himself the influences necessary for his development, and achieves spontaneously his own distinctive bodily type and his own mental individuality.

"More potent, however, than all external stimuli is the child's passionate impulse towards a development of his own inner being which shall be on the one hand spontaneous and on the other in accord with the universal trend of life. This passion declares itself in his incessant activity and during the periods of infancy and early childhood manifests itself particularly in bodily movement and in the energy of sense. Hence, notwithstanding the purity of its motive, it often begets misunderstanding and gloom, wrong-doing, strife and pain.

Froebel's System.

"In the education of your child, therefore, let your point of departure be an effort to strengthen and develop his body, his limbs and his senses. From this development of body, limb

and sense rise to their use. Move from impressions to perception; from perception to attentive observation and contemplation; from the recognition of particular objects to their relation and dependencies; from the healthy life of the body to the healthy life of the spirit; from thought immanent in experience to pure thinking. Ascend thus from sensation to thought; from external observation to internal apprehension; from physical combination to spiritual synthesis; from a formal to a vital intellectual grasp, and so to the culture of the understanding; from the observation of phenomena and their relations to the recognition of their final cause, and hence to the development and culture of life-grasping reason. By such procedure there will be formed in the pupil at the goal of his education the clear and transparent soul-picture of each particular being, including himself, of the great whole to which all particular beings, including himself, belong as members, and of the truth that the particular being reflects as in a mirror the universal life.

"Lead your child from the fact to the picture, from the picture to the symbol, from the symbol to grasp of the fact as a spiritual whole. Thus will be developed the ideas of member and whole, of the individual and the universal. Educate your child in this manner, and at the goal of his education he will recognize himself as the living member of a living whole, and will know that his life mirrors the life of his family, his people, humanity, the being and life of God who works in all and through all. Having attained to a clear vision of the universal life, his conscious aim will be to manifest it in his feeling and thought, in his relationship and his deeds."

The Family and the State.

Impressed with the immense importance of the first stage of a child's life, Froebel, like Pestalozzi, devoted himself to the

instruction of mothers. Pestalozzi held that children belonged to the family, and Fichte that they belonged to the state. Froebel harmonized this apparent contradiction by claiming children for both the family and the state, and would have children spend some hours daily in a common life and in well-organized common employment. He maintained that even an ideal mother of an ideal family could not supply all the requisites for a complete education; that the child needed early association of his equals—that is, associates of his own age. The restless activity of the child is diverted into channels that serve a useful purpose, all under the guise of play. So he invented games, gifts and occupations, which, while consuming the restless energy of infancy, should train both his subjective and objective self into ways of usefulness and unselfishness.

Preparation for the Kindergarten.

Kindergartners from the time of Froebel to the present, to be successful, must be persons of the highest quality of soul, and skilled not only in the technical work, but also in the art of accurately estimating and providing for each of the children under their supervision. Frau Maria Kraus-Boelte, one of the successful kindergarten trainers, tells of her preparation for the work in a lecture delivered some years ago and afterwards printed. She said: "My education was a liberal one, and in accordance with kindergarten principles, and besides this I enjoyed the advantages which are naturally derived from the refined and cultivated surroundings of good society. I studied the kindergarten system when a young girl, and it was Froebel's widow, then residing in Hamburg, who became my teacher and friend. Free choice and love for the little ones led me to adopt this as my vocation. I had

peculiar advantages in thus being an inmate of Madame Froebel's household. She unveiled many a thought of Froebel's to me which otherwise I should never have become acquainted with; I studied his writings with her; she allowed me to investigate much of the precious work done by him or under his directions. I attended all her different classes, besides having the benefit of her continuous private instructions. Twice each week, also, I visited the seminary for teachers, where pedagogues of high repute lectured and taught, and where I was brought into contact with the kindergartners of the city. * * * Many of Froebel's old pupils visited his widow during that time. * * * It was here my mind was early directed to America, the land—as Froebel thought—which was to be the one where his educational ideas would best take root. * * * To carry out this American project it was necessary for me to be familiar with the English language, and I went to another gifted pupil of Froebel in London, where I taught gratuitously in Madame Rouge's kindergarten, which was attended by the poorer class of children, and the work was, indeed, to all who took part in it, a labor of love, of humanity. With this able propagator of the cause I learned to look at the kindergarten from another point of view, and to understand more and more how greatly culture was needed in order to accomplish first-class work. French I spoke when I was seven years old, but I went nevertheless to Paris and continued my studies in that language. Music was again taken up; also drawing and modeling; a regular course of calisthenics was pursued. The various branches of the kindergarten system, one at a time, were once more taken up and studied—viz., the theory and practice of the games and of story-telling; the different gifts and occupations of the kindergarten; mathematics; the history of

education, etc. But I never attempted to train others for the profession until that happy day came when Madame Froebel called me to join in her work, and to take the chief charge of her training-school for kindergartners."

The True Kindergartner.

No person not filled with the "divine enthusiasm" for the work would give so much time for the study of the system. The true kindergartner must be so *en rapport* with the spirit of this system of training the very young child as to be willing and eager to make a thorough preparation, and thereafter do conscientious work. Froebel's philosophy, in effect, is that education is not putting in, but drawing out; not adding to from without, but developing from within. That education is a process of development, not by furnishing and veneering the natural self, but by constructing and aiding an ever-growing self to unfold in all directions.

Frau Kraus-Boelte mentions the idea sometimes referred to of "improving" or "Americanizing" the kindergarten system. "In their ignorance," she says, "they are not aware that Froebel's kindergarten system was never designed for *one nation* or for a particular class of society. As there is one law throughout nature, so also exists in the kindergarten one principle which is founded *on nature,* and is *intended for all mankind.*"

In treating of the all-around nature of the kindergarten development another eminent writer says:

"Beginning with the very most plastic stage of the child life, the sympathetic kindergartner is taught so to guide and exercise and develop every muscle, joint and sense organ; every budding emotional, ideational and volitional faculty; all the imaginative, initiative and creative activities; and

likewise every spiritual aspiration and faith; in truth, every organ and faculty, as they successively show themselves forth, in such a way that the little ones of her fold are unconsciously helped and even made to grow as they should grow, to be both symmetrical and capable, and this, so far as possible, without cloud or discouragement, or other source of warping self-consciousness and detrimental influence. Correct notions of self and of its relations to other selves, of aspiration and hope, of pleasure and pain, of freedom and responsibility, of play and work, are also sought to be developed, not by abstract and ideational infusions and crammings beyond the as yet but partially developed capactiy of the child, but by habitual exercise in accordance with the fact that the necessary growth of brain and nerve cells, which of late has been so thoroughly demonstrated by Flechsig and others, and of all the other physical characteristics as well, should not be outstripped or choked or perverted. In other words, it appears that ideas and doctrines of every nature, no matter how desirable, are first suggested through natural steps, and then taught by actual practice; that is, the kindergartner is to use her skill in helping the child to learn by doing, as they say, and thus to exemplify most trustworthily the doctrine and method of modern psychology."

The Universality of Froebel's System.

And again, as to the citizen's interest in this system, the same authority says: "It would be nothing less than most profitable could we proceed to analyze adequately his (Froebel's) life and work and writings, and touch fully upon his philosophy and method; if possible, to put ourselves alongside this prophet of the better times, inbreathe his clear spirit, and acquaint ourselves fully with his plans and hopes; in

fact, to place ourselves where we could get a right perspective of his pedagogic setting, and so be able eventually to think upon his life and work until we could realize clearly just wherein he is to be correlated with our present-day needs and prospects. * * * Born before our day and in Germany, yet Froebel does not seem to have been of any one land exclusively, nor of any one age. Neither was he exclusively of any particular school of philosophy or pedagogics, nor a partisan in the sociological arena; but, on the contrary, he was a veritable revelator of the true and universal spirit, sympathetic of the greater good, the promise of a comprehensive ethics and religion, and the forerunner of a completer manliness and womanliness."

The Meaning of the Gifts.

Prof. Hailmann, one of the recognized leaders in interpreting Froebel, in one of his printed lectures explains the meaning of the GIFTS:

"In order to illustrate how well Froebel succeeded in devising educational means that might be efficient in leading the child to all-sided life—*complete living,* as Herbert Spencer has it—I have selected his so-called Gifts, the most concrete of the materials for growth provided by him. They can be handled most easily and offer the clearest opportunity for testing our reasonings and conclusions. These gifts are playthings, peculiarly adapted to the scope, the wants and the destiny of the child—a destiny founded upon the idea of UNIFICATION.

"In devising and compiling these Gifts, Froebel was led by the following principles:

The Four Guiding Principles.

"1. The child is to be viewed and treated in each and every activity as being in uninterrupted, simultaneous, all-sided connection with all phases of life; hence every activity, every ex-

ercise, every gift must aid the development of the whole child, simultaneously and in all directions, must contribute to the mental, the intellectual and the moral equally, and at the same time must have physical and mental, intellectual and moral sides of development.

"2. The child is to be viewed and treated as a whole in himself, and as a part or member of greater wholes, expanding concentrically—family, society, humanity, nature, universe; as a whole, similar in all particulars of his essence, in all the laws of his being, to the greater wholes of which he is a part or member. Whatever is in each or any of these greater wholes, is also in its smallest (approximately smallest) part, the child; whatever is in humanity is also in the child; whatever is in the all—the macrocosm, is also in its smallest proximate element, the child—the microcosm.

"3. The inner development (moral nature) of the child depends on an instinct, a tendency to action, an impetus acting from within outward; the outer development or molding (intellectual nature) depends similarly on an impression, an action, an impetus from without. These two opposite yet equal, contrasted yet similar, conditions, yield in their aggregate—*with life* and *in life*—the educated human being. The human being is the product of mutual, corresponding actions and reactions, which of necessity are opposite in direction and equal in character and intensity.

"4. Hence, only the co-operation of contrasted similar conditions, and their union (connection) *in* life and *through* life, can lead the child to humanity. Thus, the union of contrasted conditions of color leads the child to the general notions of color; the union of contrasted states of consciousness, with the aid of contrasted forms of language, leads to

insight; the union of insight with action, of our thinking and feeling with our doing, leads to morality.

The Principles Applied.

"Now, Froebel asks of the gifts or playthings devised and compiled by him that they should, each and all, satisfy these four principles singly and in the aggregate. Inasmuch as they are external to the child they should therefore as fully as possible represent the outer world; so that with their aid the child may succeed in understanding, in grasping, in appropriating and assimilating the outer world; in making, as Froebel has it, the *external internal.* On the other hand, these playthings must be sufficiently limited in size, parts and properties to come fully within the child's control; so that he may with their aid—by transforming, re-arranging, moving them—represent his thoughts and feelings in concrete forms, give expression to them in material representations to be re-criticised by the senses—that he may make, as Froebel says, the *internal external.*"

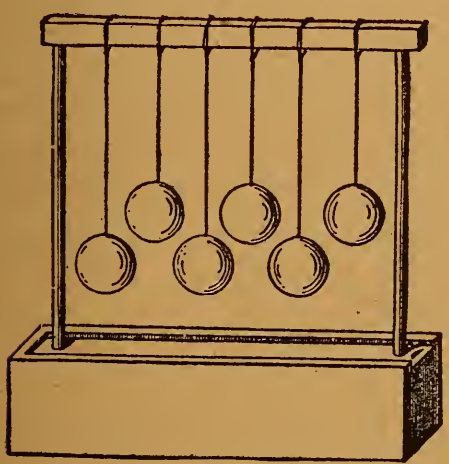
The Gifts Described and Analyzed.

The *first Gift* designed by Froebel is the ball, or rather balls. They are made of soft worsted, of three elementary and three secondary colors. They may be pendent as in the illustration, so as to be within the child's control.

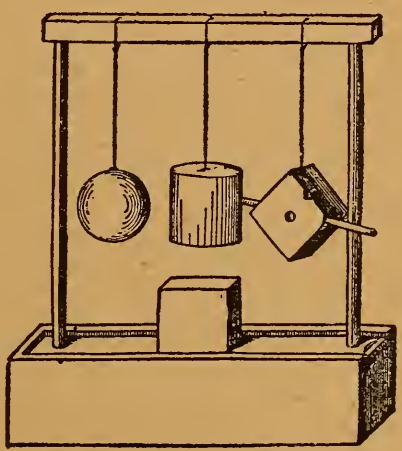
Of the First Gift, Hailmann explains: "As the child, the growing germ of consciousness, of self, is ready and eager to take in all the world with all its actualities and possibilities, the ball, the simple embodiment of the essence of all things that are and can be, is a suitable representation of every object that may impress the child's senses, serves as a center of attraction around which all his impressions can cluster, and

enables him to give full and true expression to every form of thought and feeling; for, as yet, surrounding objects are to the child only what the ball is, simple, undivided and indivisible objects—one or many—at rest or moving."

The Second Gift is a box containing a sphere, a cylinder and a cube, agreeing in dimensions. They may be swung so as to allow the child to give each a variety of positions. These each appear to the child as an undivided and indivisble whole. So that he may find in the Second Gift all that he found in the first, and more. The difference in the balls, the



THE FIRST GIFT.

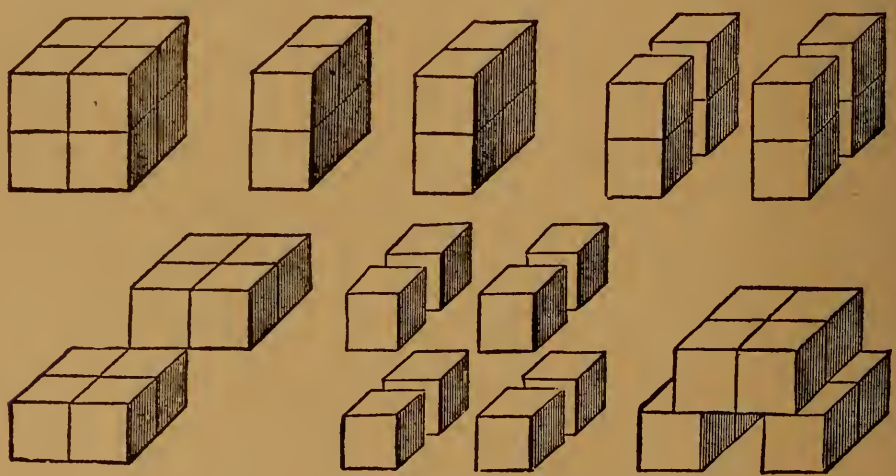


THE SECOND GIFT.

First Gift, was expressed in color; the difference in the Secdon Gift is expressed in shape.

Says Hailmann: "There is, in the Second Gift, again, rest and motion; but, while in the First Gift they *ad*hered vaguely and equally to each and all the members, they, too, become in the Second Gift *in*herent qualities, or characteristics. In the cube rest appears as firmness, inertness; in the sphere, motion as mobility, life; and the cylinder placed on end approaches in inertness the cube; placed on the side, it resembles in mobility the sphere. Thus the three appear as

representatives of the vague essence of the three kingdoms of nature: in the cube life sleeps as in the mineral kingdom, and the cube moves only when placed on edge or corner, to return again to sleep; in the cylinder, the type of the vegetable kingdom, axial life in certain directions begins to manifest itself; and in the sphere, as in the animal kingdom, all-sided life, life in all directions, is reached. Again, the Second Gift presents types of the principal phases of human development: from the easy mobility of infancy and childhood—the ball—we pass through the half-steady stages of boyhood and girlhood—represented in the cylinder—to the firm character



THE THIRD GIFT.

of manhood and womanhood for which the cube furnishes the formula."

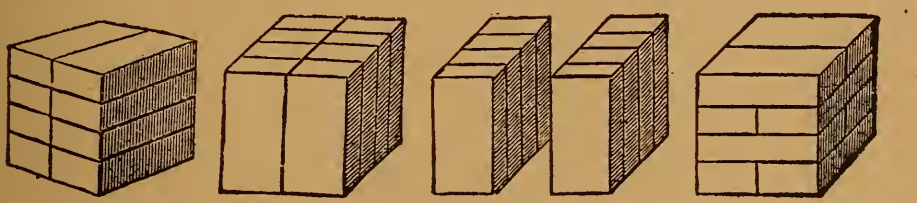
"The Child's Joy."

The Third Gift is a cube somewhat larger than the Second Gift, cut once in the direction of each of its dimensions and divided into eight smaller cubes. Froebel called this Gift "The Child's Joy." It is the first gift that does not represent an indivisible whole.

The growing desire for independent activity finds expres-

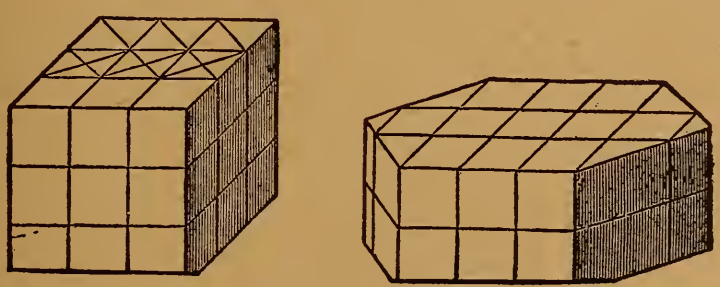
sion in the Third Gift. The child can take apart and put together many different forms agreeable to the innate longing to create.

The same authority, speaking of this desire in infancy, says: "Left to itself, or allowed to vent itself upon the frail play-



THE FOURTH GIFT.

things of the toy shop, this awakening consciousness of power will become wanton destructiveness and cruelty, egotism and vandalism. The child lacks the skill and insight to restore his toy horse from the fragments into which he has searchingly shattered it, and they are too frail and irregular, as well as too specific in shape, to be made into anything else; the

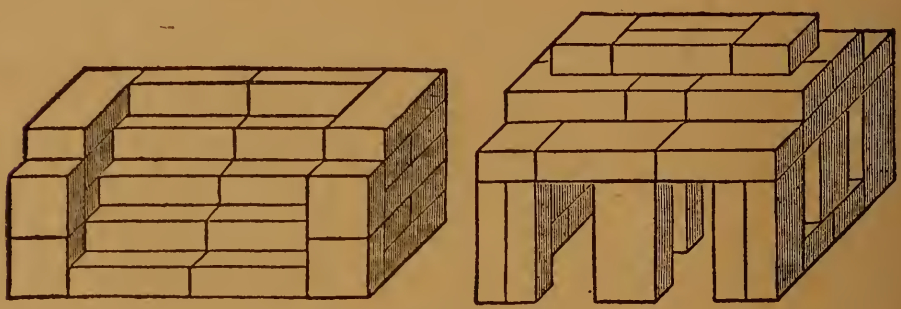


THE FIFTH GIFT.

child has made an analysis, but he is unable to make any synthesis.

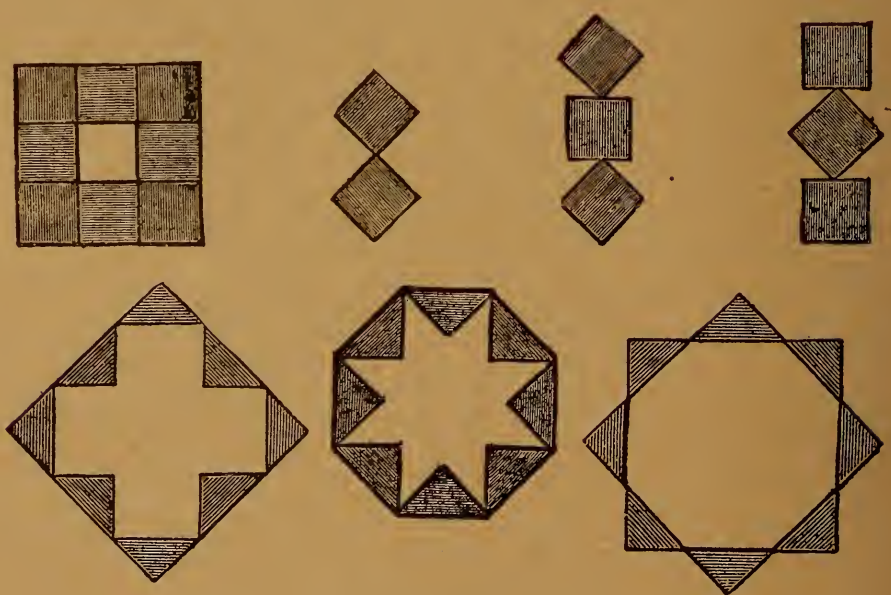
"Not so with the parts of the Third Gift; the cube is broken up; but oh, wonder and joy! each of its parts resembles the whole, the original; he has not destroyed, he has not killed his own joy, he has more, *more* of the delightful playthings.

* * * And behold! when they are put together again—when a synthesis is made—what a wealth of new forms, what a store of new playthings grow as by charm out of the parts!



THE SIXTH GIFT.

Now a table, then a chair, a sofa, a bed, a house with many windows, or a little village, a poultry yard, a stable, a wagon, a bridge, a train of cars."



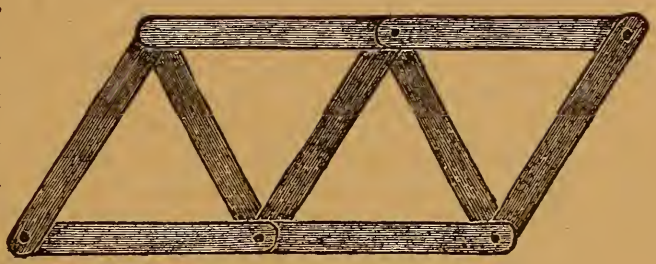
THE SEVENTH GIFT.

Thus the force, which would be destructiveness if untrained, becomes creative.

The Fourth Gift has an aim similar to the Third; but it

gives rise to the observation of similarity and dissimilarity. It is a cube again; but is this time divided into eight oblong blocks.

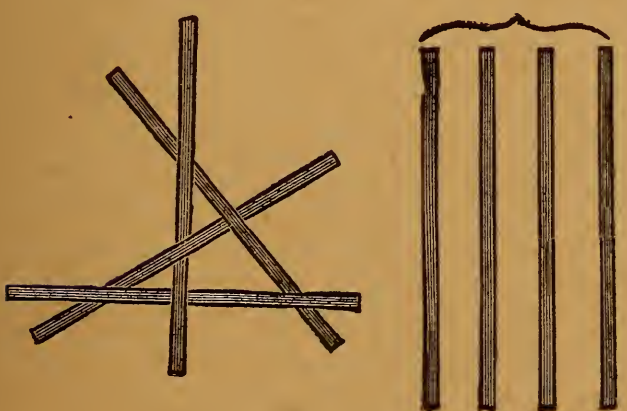
The Fifth Gift brings in number the factor *three,* in shape the *triangle,* in direction the *oblique* line, as characteristic elements. It is a large cube divided into twenty-one whole cubes, six half cubes, and twelve quarter cubes.



THE EIGHTH GIFT.

The Sixth Gift reveals the value of *axial contrasts* and further assists in analysis and synthesis.

The Seventh Gift consists of tablets of wood of different colors and of triangular and quadrangular shape. This is an advanced step for the child. Heretofore his work has been with objects representing length, breadth and thickness. With the tablets the thickness has disappeared, "and he seems to be playing with abstract elements of surface. With these square tablets and others of triangular shape, the child lays, constructs, no longer real solid representations of things, but their pictures or surface representations."

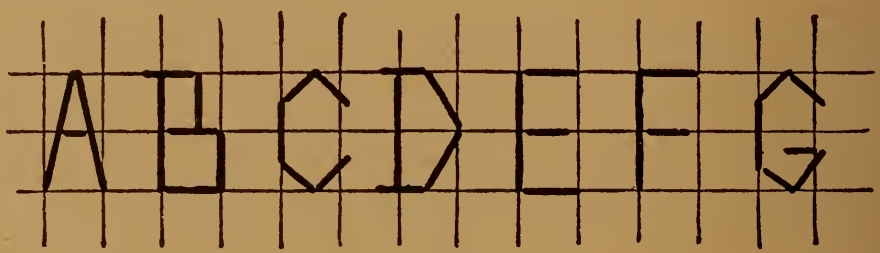


THE NINTH GIFT.

The connected slat is the Eighth Gift. This represents the embodied edge of a figure of which it is the outline.

The Ninth Gift is the disconnected slat.

The Tenth Gift consists of wooden slats of various length and one-tenth of an inch in thickness. The slats, like most of the preceding gifts, are intended to teach numerical proportion; they represent the embodied *straight* line, and are



THE TENTH GIFT.

an excellent preparation for drawing and other occupations. By interlacing these slats an almost inexhaustible variety of forms is produced.

The Eleventh Gift consists of whole and half wire rings of various diameter. The rings, like the sticks, are intended to teach form and proportion; they represent the embodied *curved* line.

THE ELEVENTH GIFT.

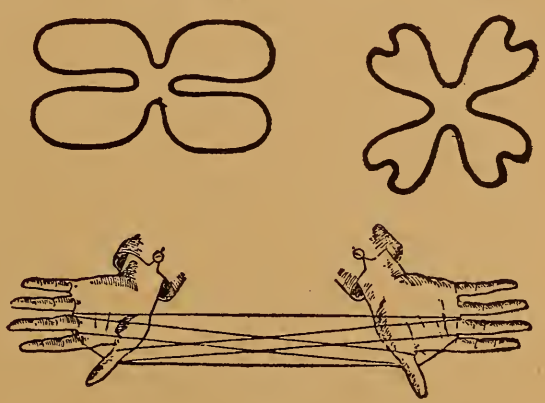
The Twelfth Gift is the *thread,* which not only is amusing and instructive, but is of actual use to the child; by means of the thead innumerable forms of knowledge, symmetry and life can be produced.

The Thirteenth Gift is the *point,* by which seeds, shells, stones, etc., are made to form lines, and with the lines an unlimited variety of figures can be produced on a plane. It

offers suitable opportunity to exercise small children in grouping and sorting the different materials.

The Philosophy of the Gifts.

"We see in Froebel's Gifts," says Hailmann, the "outward appliances of a scheme of mental training influencing, feeding the various phases of mental life, inward and outward, evenly, harmoniously and with almost ideal directness and efficiency; leading the child in his thoughts and expressions, in his feelings and actions, in scope and intensity, to unity, to universality. These Gifts enable the child to give outward shape to whatever notion he may have formed of things; to express not in *words* alone (which are so fleeting and uncertain), but in things, his ideas of their relations; to reflect outwardly, to produce in visible shape the impressions which the world has made through the senses upon his consciousness. While his hands grow in skill as they increase in size and strength, he has, too, better opportunities for comparing his notion of things with their corresponding outer realities, and for correcting and amplifying them.



THE TWELFTH GIFT.

"Every step in insight leads to a corresponding advance in expression, in skill; the pleasure that attends the increase of light which his play with the Gifts throws upon the world about him, arouses, fixes, strengthens his love of truth; every new success in obtaining clearness adds to his firmness of

purpose; every fresh triumph in the invention of simple forms of symmetry enhances his sense and appreciation of the beautiful; every intellectual gain reacts favorably and immediately upon a corresponding moral impulse; every new analysis is immediately followed by infinitely varied syntheses, in which the new elements of knowledge gained are combined and recombined with each other, and with previous cognitions, in endless reproductions and inventions, in endless forms of utility and beauty assimilated at once and wholly into the life of the organism."

THE THIRTEENTH GIFT.

The Occupations.

The Occupations designed by Froebel continue the work of all-sided development. These are the Perforating, Sewing and Embroidering, Network, Drawing, Painting, Weaving and Braiding Mats, Paper-interlacing, Paper-folding, Paper-cutting, Mounting and Silhouetting, Peas or Cork Work, Cardboard Work and Modeling in Clay. In all of these the artistic, the moral and the intellectual are drawn out.

The following story is illustrative of the spread of the kindergarten art from child to father:

The Child Teaching the Father.

"One morning a stranger, to all appearances a workingman, called upon Madame Froebel, bringing with him some

large object carefully wrapped in paper. Apologizing for the liberty he was taking, he explained that his little boy, who was then about five years old, had been for two years a pupil in the kindergarten. He stated that he was himself a joiner by trade, but as he had not sufficient means to carry on this occupation with profit, he had some time since become greatly disheartened. About this time he noticed his little boy, who was accustomed to come into his workshop to play when returning from the kindergarten which Mrs. Froebel was conducting, and watched him as he played with the chips which he found scattered around the shop. At first the father did not pay much attention to the child's play, but one day he noticed that he had made a combination of very beautiful forms consisting entirely of triangles, which he changed regularly and methodically from one form into another. Becoming interested he sat down by the child's side, learning from the little one. After awhile he, too, began to arrange the forms in the same way, and according to the law of opposites, so unconsciously carried out by the child—a law which the maturer mind of the man grasped at once. The result of this occupation was that he had manufactured some very beautiful tables, the surfaces of which, formed according to the rules practiced in the kindergarten, were inlaid with parti-colored wooden triangles. These tables he had disposed of at a considerable profit, and had thus been enabled to relieve the wants of his family and better his own circumstances; his trade had materially increased and he was becoming quite prosperous. He, therefore, called upon Mrs. Froebel to express his gratitude and begged to offer her as a token of his thankfulness the little table he had made, and which showed upon examination the star forms produced by following the

law of opposites, which his little boy had been taught to find in the kindergarten."

"Let Us Live with Our Children."

"Come, let us live *with* our children," says Froebel.

The science of mathematics is one in which the kindergartner must be proficient in order to comprehend the great underlying principle of Order and Calculation. "In sleep," Froebel asserts, "life reposes merely slumbering, as in number and in counting there slumbers the highest meaning and importance of life."

In the Mother-Play, the ordering or measuring of Time and Space is noticed in the "Tick-Tack" and "Little Thumb, I Say One" games. In his commentaries on the Mother-Play songs, Mr. Dennis J. Snyder says of the Tick-Tack song: "The charm which the clock exercises over the child connects him with Time; he becomes aware of a great ever-flowing invisible stream, which bears him along from birth to death; a grand cataract it may be imagined between two worlds.

* * *

The Niagara of Time.

"At this moment man is trying to conquer yonder physical Niagara, and to make it yield up its mighty energies to his control. The vaster Time-Niagara is whirling the little child down its rapids, but he, too, must start to subduing it, bend it to his own activity; he cannot destroy it, but he can direct it to his own purpose. For all human life is one grand Time-Niagara, falling out of one world into the other; each man has to shoot the cataract; how can he do it and not be lost? Make an early start; the infant, not yet articulating fully a word, begins on his mother's knee with this play-song of the clock; it is the commencement of mastery.

"Observe that it is not only about Time, but that Time enters into its very fabric; you cannot sing it without Time, which is the basis of meter and music. Sound, word, verse are all to be measured in this play-song, and in every other one for that matter; the body's movements are to be made rhythmical with the meter and voice; the feelings are caught up and attuned; the entire inner disposition of the child is borne forward in harmony with itself and with the Supreme Order. * * * The child begins its ordered activity in mastering the divisions of Time, for Time is empty till it be filled with the activity of the Ego, which thus becomes Time's master. One thing is certain; unless the Ego rules Time, Time will rule it and become a terrible oppressor, for Time is the hardest master in the world. Ennui is the vacancy, or rather the death which comes from Time unfilled; unless the Ego impresses its own movement upon Time and fills the same, Time will impress its emptiness upon the Ego and reduce it to the pure void. * * *

"Space and Time are the two grand primeval chaoses into which the child is plunged by the very fact of birth. Both must be subdued, organized, utilized; they are the two wildest, mightiest steeds of nature; both are to be tamed by the soul and hitched to her chariot for the ascent to Heaven. Froebel begins this process with the little child, well knowing that infancy must not be lost."

The Vast Importance of the Kindergarten.

Parents, mothers, guardians of childhood cannot gain an idea of this system of developing child-life by taking a superficial glance at it. It does not consist merely of play—of something to entertain the child or infant. Its thorough educational possibilities make it a system worthy of serious

consideration. "Every child is entitled, even in its own inherent right, to nothing less than the very highest endowment and the most appropriate nurture," says a writer in one of the current periodicals. "Let right formation be the aim and end, and re-formation will take care of itself. The kindergarten unmistakably points to the stronger growth of the body, the better formation of character, the happier individual and the truer citizenship."

And a writer in the *Philistine* says: "The kindergarten is the most perfect 'all-'round' training school in the world. It trains by wisely guided practice the five senses in the receiving of correct impressions; and the ideas and forms thus taken in are at once expressed by both tongue and hand. Go into a good kindergarten and see the 'things of beauty' made by infants there; creations of paper as expressions of impressions of form and color and beauty entirely impossible to our manly and womanly 'all-thumb' fingers. The ideal kindergarten is an ideal school of complete impression and complete expression—an ideal school of civilization. * * * *

Teaching Hand and Brain.

"Hand in hand should go the development of understanding and expression from birth onward, and this double training should not stop, as it does stop, at the first grade at the age of six. Why do we then stop the development of expression by the hand, except in writing and a little drawing? That is, stop almost all expression, and go to 'walling up' a so-called trained mind away from its environment by allowing the hand to grow up 'all thumbs,' when the child with the 'trained mind' must, by this very hand, work out, or not work out, the divine conceptions of his mind?

"Between the kindergarten and the end of his grade-school

life there should be no change of front, but the double work of correlative impression and expression should go on, hand in hand, a just proportion of thought and its expression orally and manually. That amount only of thought should be given that can be properly expressed by its proper mode of expression; for when the child is grown up his worth to himself and to the world will be proportioned to his expression, while the excess of unexpressed proper thought will be dead matter to clog his brain."

For the purpose of awakening thought on the subject of training both hand and brain the following chapter is written.

PART III.

CHAPTER III.

Manual Training.

THE culture effect of training the hand as well as the brain has been recognized by the most advanced thinkers along educational lines for the past century or more. The great Ruskin said: "Let the youth once learn to take a straight shaving off a plank, or draw a fine curve without faltering, or lay a brick level in its mortar, and he has learned a multitude of other matters which the lips of no man could ever teach him."

The old educational idea was to pour all kinds and conditions of men through one stereotyped specified course of study; to store the mind with facts and formulas without aiding the individual to express himself. Prof. David Starr Jordan said: "To fit man into schemes of education has been the mistake of the past; to fit education to man is the education of the future."

The New Education.

According to modern evolutionary philosophy mankind is a part of nature—one of the many forms through which the supreme life of the universe finds expression under laws as definite and marked as anywhere else in nature. While recognizing this fact—that man as an individual is a creature of law throughout all the development of his powers in body, mind and soul, the new education also recognizes that man

is a social being and that there are as definite laws underlying the development of human society as elsewhere in nature.

"No truth is really our own," said Emerson, "until we have discovered it for ourselves." The aim, or rather the result of all teaching, of all learning, through language written or spoken, is to prepare the mind for the reception of truth. The fuller the preparation the more complete the understanding of truth. Truth itself is not written or spoken. Truth *is*. It is communicated from the source of all to the receptive mind. When it is fully known that training which does not teach a child to think and judge independently is worthless, the way is fully opened to advancement on social lines. To train a child to acquire knowledge by his own activity was Froebel's aim. Herbert Spencer argued from much the same standpoint. Said he: "Children should be led to make their own investigations and draw their own inferences. They should be *told* as little as possible, and induced to discover as much as possible." He insisted that the real man must be reached in order to have education benefit; that when the child is dragged away from facts in which he is interested and which he is actively assimilating, and placed in school, where he is given ideas too complex for his comprehension, a morbid state of mind is thereby induced, and a consequent disgust for all knowledge is engendered. When discovering ideas at first hand and making practical application of the same there is keen and active interest, and, of necessity, growth and expansion of the inherent powers. Under the older educational systems instruction was an artificial, outside thing to be forced upon a child, making many a one practically useless as a vital factor of society. It is said that Horace Greeley would not allow a college man to take a position on the New York *Tribune* when he was its editor,

because he recognized the impracticability of the educational process through which the students were ground out. The new conception of education is to lead forth or draw out the child's nature and not to engraft knowledge upon it.

Comprehension and Expression.

"The human mind is capable of two things or acts—understanding and expressing—receiving ideas and giving ideas," says a thinker on the subject of education. "An idea simply received into the mind or simply created there, and not expressed, is of no value to any one except the person receiving or thinking it. Those ideas only have been of value to the human race that have found lingual or manual expression. It is evident that without expression we should have no great literary works, no great works of architecture, sculpture, music or painting. Thus, Art had never been born, and we should live, with men all around us, as much alone as was Robinson Crusoe on his island.

"The mind has six ways of understanding, or of receiving impressions—through the five senses of seeing, hearing, tasting, smelling and feeling, and the sense of temperature. All we know or think or feel must necessarily come through these channels. They are creation's ways of placing us in contact with the material world around us. Without them we should be worse than blind, deaf and dumb. We should have no knowledge whatever, not only of the world around us, but of the fact that there is one.

"Thus we are wisely placed, by means of these so-called senses, in connection with the material world around us. They are the adjustments between mind and matter; the railways of supply leading from the world into the union depot of the mind. Through them we understand, we receive impressions.

"But Nature has not thus gifted us in the matter of expression. She has given us but two channels of expression—the tongue and the hand. Except some motions, such as of anger and of sorrow, that may be expressed by means of the countenance, we can put out or express what the senses bring by the tongue and the hand *only*. Unfortunately, civilization has undertrained the latter, and overtrained the former, as every day bears witness.

" * * * It must be evident that the great majority of our ideas find expression manually and not lingually, the tongue being able to give expression to those ideas that are immaterial only, while the hand *may* give expression to these and *must* give expression to all the other forms of thought; for, of course, the hand and not the tongue must express our thoughts in matter, and in those things that exist after we are gone.

The Hand the Complement of the Mind.

"There seems to be a necessity of manual training in all that the word implies, for thoughts and ideas are worthless to the world unless expressed in some way or other. * * *

"I would define manual training as the cultivation of the hand so that it may be able to express the ideas of the mind; to serve as an adjustment between mind and matter; to be the complement of the mind in man's struggle for the control of his environment.

"Nearly all human effort has been wasted because it has not been directed by a clearly defined rational purpose. Purposeless effort attains a desired end by accident only; effort directed by a well defined purpose goes straight to the desired goal. Want of purpose is the most prevalent and dangerous of human faults. Its presence shows advanced

civilization; its absence shows want of civilization. Purposeless effort is like shutting one's eyes when about to shoot: one is as likely to hit the target in one case as the other.

"Now manual training, in the common acceptance of the term, has had a wrong purpose—the purpose of apprenticeship. It is this purpose that needs reformation—a reformation in accordance with the broader and truer meaning of the term. The purpose of manual training should be to train the hand to express the mind, not in one trade or line of work, but to express whatever the mind of the person training is capable of thinking or conceiving; in short, to be the complement of the mind.

"With this purpose in view it becomes necessary to reconstruct to some extent our general idea of school work. It will be seen that we have been training the mind and tongue, and not the mind, tongue *and* hand. The extent to which we have trained the hand has stopped at writing, and some little expression of material forms by drawing. In fact, we have been training 'walled-up' minds, and then locking up the ideas we have evolved by neglecting to train the only organ by which they can ever get out to the world. I think much of the unrest of people comes from the feeling of general uselessness. * * * We feel within us a something struggling for expression, and we cannot 'put ourselves out' in forms representing the thoughts that are in the brain. * * *

"We know that all great men have been great men not simply because they could think great thoughts, but because they could think and also *express* great thoughts.

"Every man's value to society is exactly proportioned, not to his thinking power, but to his expressional power."

All-Sided Development the Hope of Mankind.

Intelligence with the complementary power of expression develops taste for better things. The boy and girl whose training has been for all-sided development do not make the thief, or drunkard, or prostitute. Industry profits by every step in the elevation of humankind whereby each individual recognizes his own responsibility in the weal of common good. Thomas Jefferson said: "If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be."

Better conditions make better people. But to inaugurate better conditions thoughtful, generous-minded people are necessary. A perfect Utopia would be a dreary waste unless a stimulating system of education gave us original and sympathetic men and women to live therein.

Education must provide more than the mere tools of existence. What is a life that is merely housed in a physical body or whose thoughts and aims are merely of creature comfort? When a man provides clothing, food and shelter for his family he has but furnished the groundwork for the real life of the family; there is much more necessary. While every youth should be equipped with the means of earning an honest living, he should also be developed to know what is honest and pure and wholesome for his moral nature. Energy, economy and excellence are inevitably linked with success, and the youth must come to a realization of the fact that he can never do less than his best in order to attain to a firm position.

The Harmony of Life.

The idea of unification made prominent in Froebel's philosophy, if carried continuously through the grade work, en-

ables a child to make the inner life and its outward expression harmonious. A child who can "draw a fine curve without faltering" or learns to "lay a brick level in its mortar" has a conception of an exact law; such a one will never be an "erratic genius;" he will have the all-sided development that shall make him a complete man.

A manual training school instructor, Dr. Belfield, is quoted as saying: "My opinion is that an hour in the shop of a well-conducted manual training school develops as much mental strength as an hour devoted to Virgil or Legendre. I am satisfied that three years of a manual training school will give at least as much purely intellectual growth as three years in the ordinary high school, because every school hour, whether spent in the class room, the drawing room, or the shop, is an hour devoted to intellectual training. I am convinced that the manual training school boy's comprehension of some of the essential branches of knowledge will be as far superior to that of the ordinary high school boy's as the realization of the grandeur of the Alps to the man who has seen their glories is superior to the conception of him who has merely read of them."

Intelligence and Skill.

In addition to cultivating the intelligence, the training of the hand to express what the brain conceives creates skill. Skill increases and multiplies and produces diversity of employment. The youth so trained has learned to think and to express his thoughts in things: he has mastered the great lesson of power in learning how to make things yield before his skill. The sense of capability is what does away with cringing cowardice. The youth knows that he knows, and is not afraid.

Francis A. Walker said: "If we ask a boy to take his place at a carpenter's bench it is not that we wish to make a carpenter of him, but that we wish to make him more of a man. We know that there is only one chance in fifty that he will use the saw, the chisel, the plane, the hammer as the tools by which he earns his bread; but if he has had proper training in their use he will carry to his work in life, whatever it may be, not only a better hand and a better eye, but also a better mind, a mind more perfectly filled and rounded out on all sides."

At the present the same advantages for boys in manual training do not exist for girls. But the girls' time will come, when once the culture effect is recognized. The woman who cannot strike a nail straight upon the head will, in the near future, be a relic of the past.

The Sloyd System.

There is a system of training the hand in skill known as Sloyd work that obtains in the schools of Sweden and Finland, and which has, to some extent, been transplanted to the schools of the United States. In this children are engaged for a certain number of hours daily in making articles of common household use. The objects are made from drawings or models, according to exact measurement, and with the utmost accuracy and finish. The innate love children have for construction is thus engaged and develops the habits of self-reliance, order, accuracy, attention, etc. Muscular strength and skill are thus engendered and a wholesome respect for work is developed.

Manual Training Superseding the Apprentice System.

The only reason the labor of the hand has been subject to derision in past times is because the brain and hand were not trained together. Boys were apprenticed for a certain

number of years to craftsmen and were allowed little or no recreation; they failed in receiving the necessary all-sided training, and hence the brain worked slowly, often stupidly, except in the one line in which they were trained. The apprenticeship system is dying out since the advent of steam-driven machinery. The tools are too valuable to trust to any but skilled hands. One writer says: "The manual training school fills the place of the apprentice system. It much more than fills the place. It fills the place of the apprentice system as the locomotive fills the place of the stage coach. The apprentice in a shop is a hewer of wood and drawer of water, the last and least important individual in the shop. In the manual training school, on the contrary, the boy is the most important individual. He is the object for which the school exists. He is the material that is to be finished. Instead of being left to pick up what he can, competent and intelligent instructors devote themselves to his training."

A man who was an apprentice and afterwards became an instructor in forging, vise-work and machine-tool work in the Boston Mechanic School, said: "It appears like throwing away two or three years of one's life to spend them in attaining a knowledge of a business that can be acquired by a proper course of instruction in sixty days, two hours each day. The dexterity that comes from practice can be reached as quickly after the one hundred and twenty hours' instruction as after two or more years spent as an apprentice under the adverse circumstances of ordinary apprenticeship."

Ruskin's View of Education.

In one of Ruskin's printed lectures he speaks of being frequently consulted by parents respecting the education of their children. He says: "I am always struck by the precedence

which the idea of a 'position in life' takes above all other thoughts in the parents' minds. 'The education befitting such and such a *station in life*'—this is the phrase; this the object always. They never seek, as far as I can find out, an education good in itself. * * * It never seems to occur to the parents that there may be an education which, in itself, *is* advancement in Life; that any other than that may perhaps be advancement in Death; and that this essential education might be more easily got or given than they fancy if they set about it in the right way; while it is for no price and by no favor to be got if they set about it in the wrong."

The *right* training for the young of the present we believe to be that which cultivates the mind and tongue and hand—that which gives expression to all the culture the brain is capable of receiving. Hitherto those whose minds have been cultivated have neglected their hands; and those who have labored with muscle found no opportunity to cultivate the brain.

The Skillful Hand and the Cultured Brain.

It is not assumed for an instant that every child who receives manual training will gain his livelihood by that means. Some there will be whose natural inclination will lead them into other paths. In which case it can never be argued that one is less efficient as a physician, lawyer, teacher, writer, or what not, because of the training of the hand. All gain morally and intellectually by experience in contact with *things*. The young person who grows into a professional life will be glad of the skill of hand for his recreation. Such a one will, no doubt, be more domestically inclined than the professional who has missed this phase of development, and will, in his leisure, plan for the improvement of

home surroundings. The one whose lifework is from among the mechanic arts will require recreation of a mental nature, but will be accurate and orderly in his home life because accuracy and order have been part of his development. Everything will be better planned and better executed because of all-sided development, such as was outlined by Froebel for the very young, and which should never be discontinued through life. Many have been, and yet are, kept down by *want* of skill, but no cases are known of failure to rise *because* of it. Failures sometimes result from lack of concentration on a given line of work; this is true only of the person who has failed to find the work in the doing of which his inner self finds joy. Work merely for the sake of what it brings in dollars and cents and material advancement is not the work which belongs to the person who executes it. When youth are trained that *all* necessary work is as honorable as any part of it, when the whole nature of man is evenly balanced, there will be no looking down upon the labor of the hand. The skill of the hand will be directed by the cultured brain. It will be as the painter said when asked what he mixed with his colors. "Brains," was the reply. Concentrated attention to any work shows superior results when there is a trained avenue of expression; and the active mind is always seeking means of improvement. This distinguishes from the plodder, who "lets well enough alone." The man who was content to sharpen pins very well was found at the closing of his days yet sharpening pins at the same wages.

The Joy of Finished Work.

Dr. Felix Adler says that the moral benefits of manual training can only be reached by making complete articles.

"Pupils should never make heads of pins or the ninetieth fraction of a shoe." It fails in balancing the faculties. "Anything complete, rounded, full, exact, gives pleasure," says another; "anything slovenly, slipshod, unfinished, is discouraging. God has mixed a feeling of content with everything finished. A man who has learned to do a thing well enjoys doing it. This is the lure which wise Nature uses to lead us to finish our work."

As everything animate and inanimate bears certain relation to everything else, it is easy for the mind trained to calculation to see the legitimate results of certain activities. He recognizes that "as ye sow, so shall ye reap," and consequently will not plant "wild oats" and then call it ill luck when the fruits of the sowing are bad.

Manual training will not make an exceptionally bright child out of one who has not had its "birthright of being well-born," but, for the inherent character possessed, will give an even development. Even in such there will not be the mental incoherency that produces criminals. Ruskin, the truth of whose philosophy few will combat, says: "How many soever you may find or fancy your faults to be, there are only two that are of real consequence—Idleness and Cruelty." It does not require a very mature brain that has had proper culture to see that idleness and cruelty are not profitable or even pleasurable. In intelligence lies the safety, not only of individuals, but of the commonwealth.

In closing, the following is selected from the writings of one much interested in the development of the young and who believes the manual training school solves many problems:

The Dream of Poesy.

"Ignorance and discomfort go together. Intelligence and comfort go together. With increase of intelligence comes increase of comfort.

"Only a few centuries ago nearly everybody was ignorant and nearly everybody was poor and uncomfortable. Comfort was the exception; hunger and nakedness were the rule. The sun shone then as brightly as it does now, and the earth was as teeming and fruitful then as now. Our ancestors got less out of it than we, because they knew less than we. We get more out of the earth than they did, because we know more than they did.

"The way comfort has increased with intelligence proves that there is in this world an abundance for all who are fitted to get their share. One reason that so many people are uncomfortable is that they are not fitted by their training to get their share of the good things of this world. With better training we should have a more comfortable world. With each step towards better training we shall have a more comfortable world.

"The individual requires intelligence to hold his own in the world, and our government requires intelligence, not only in the few, but in the many. Having solved the problem of managing a state without a king at the top, we now find that the ignorant man at the bottom is almost as much of a nuisance as was the king. We find that we are governed by the ignorant man quite as much as we are by the intelligent man; and rather more, because the ignorant man likes to govern us and he is willing and can afford to devote all his time and attention to it.

"Our problem is at all hazards to get rid of the ignorant

INNOCENCE—C. H. Anderson.

"KISS ME QUICK"—R. Epp.

man. The most ignorant man in the state has a vote that counts for as much as the vote of the most intelligent man. What the most intelligent man wants to accomplish for the good of everybody cannot be done until a sufficient number of ignorant men are convinced that it will not hurt them; because not until they are convinced can a majority be got to vote for it.

"As the strength of the chain is only equal to that of its weakest link, so the action of the government is constantly kept down towards the level of the most ignorant man in the state. I would not, on that account, deprive the ignorant man of his vote. Deprived of his vote he would be a man with a just grievance. In comparison with him all the other people in the state would be a privileged class. No, I would not deprive the ignorant man of his vote. But I would so arrange things that his boys and girls would get the benefit of the manual training school. As to the ignorant man himself, eventually he would die, and under the circumstances his kind would die out.

"Self-government was easily possible for the forty-one men who landed on Plymouth Rock, because they were intelligent men. Had they been ignorant men self-government would have been full of difficulty for them. Ignorance becomes lawless and riots under circumstances under which intelligence discusses and convinces others, or is itself convinced and holds its peace. Ignorance is the arch-enemy of self-government. If self-government is to flourish, ignorance must go. Self-government implies that all men must rule, all men must be trained so as to be fit to rule. For its own preservation and perpetuation self-government requires the highest possible elevation of all men. What fresh air and food are to the human body the school and printing press

are to self-government. Untrained brain power is wasted brain power, and self-government cannot afford to let brain power be wasted. * * *

"Smiling, Loving, Happy Homes."

"From Jamestown and Plymouth Rock down to the present moment the loftiest American thought is that in this country there shall be at the earliest possible moment, free of charge, for every child on the soil the highest and best and most practical training the child can take and the world can give. The dream of commerce and industry is a land full of good customers. The dream of patriotism is a land full of free, intelligent and independent citizens. The dream of poesy is a land full of smiling, loving, happy homes. The dream of commerce and industry, the dream of patriotism and the dream of poesy are all the same dream."—*An Ounce of Prevention.*

PART IV

HEALTH AND HYGIENE

PRACTICAL LESSONS FROM A COMMON-SENSE SCHOOL OF MEDICAL SCIENCE.

"An ounce of prevention is worth a pound of cure."

PART IV.

CHAPTER I.

Long Life Not a Secret.

THE length of life allotted to man, as mentioned in the Scriptures and usually accepted as established, is seventy years. But this is not irrevocable, for few of the many born live to that age, and many live beyond. This particular age has only been hit upon as a sort of average; strictly it is not even that, as so many children die under five years of age. But it is the period which every healthily born, normal being should reach, if no violence befall him. Scientists, who measure longevity by the various epochs in our growth and decline, declare that a century is the normal duration of man's existence on earth. But really the length of life cannot as yet be estimated, for we do not know to what extent we may be able to preserve our powers, nor how much we may accomplish by using our universal life forces to renew our energies. As long as the waste of life does not exceed the renewing process, we may live and exercise all our faculties. With a good constitution, no heritage of bad traits or weakness, an obedience to the laws of health and happiness, there is no need of placing a limit to the length of man's earthly existence. There should be time enough to develop one's capabilities, time enough to acquire a knowledge of earth's resources, time enough to exhaust the range of earthly experiences.

Rational Methods of Living.

To be able to live a long, useful and happy life, one must study rational methods of living. The best and most reasonable process of preserving strength and health should be made part of the general education. From trustworthy statistics it is ascertained that man, at the present time, reaches the zenith of his mental and physical powers between the ages of fifty-six and sixty-five. If he understands the laws of life he should not deteriorate for thirty or forty years. It is known, too, that he need not lose any mechanical skill or artistic ability he may have acquired until long past the term of life which has been accorded him as his limit.

Michael Angelo was still giving to the world samples of his finest work at eighty-eight. Milton, lacking one sense by which men enrich their powers, did his best work at the age of fifty-seven, while Johnson manifested his highest abilities at seventy-two. In looking over the dates at which our greatest scientists and philosophers have achieved their best tasks, we see that they were at their height a long time past what is usually considered middle age. Darwin was sixty-two years old when his last, best work was finished; Spencer, beyond the three score years and ten, was still the greatest philosopher the world has ever known; Gladstone, Bismarck and many another gladiator in the great sociological arena gave proof of their unfailing vigor after the four-score year-mark was attained. Leo XIII. at more than four score and ten was not only the efficient head of the Roman church, but a marvel of physical, mental and intellectual activity. The long active lives of these men prove that our faculties need not fail us with the flight of time. Simple living, high mental and moral aspirations, lively interest in and keen sympathy with the movements of humanity, will preserve the freshness and vital-

ity of youth down to the last days of a well spent century. We waste too much energy in our younger days, needlessly and uselessly. When men and women do not do this, they find that they possess a sufficient energy for emergencies even in advanced old age. Nearly all nervous waste is avoidable. Over-work, over-eating, dissipation, unnecessary exposures and insufficient nourishment wear out the vital forces and decrease the energies which ought to carry existence further on. Idleness, inertness, lack of proper ambition, dull our faculties and leave us rusting away. Excessive exercise apparently strengthens for the time, but generally does so at the expense of one's vitality. Trained athletes do not often reach the age of sixty, the nervous force being diminished by too rigorous exercise in youth.

During the civil war, observation proved that those soldiers could best bear the hardships of war, such as exposure to cold and wet, fatigue, lack of sleep, hunger, etc., who had lived moderate lives, enjoyed some leisure, good food and comfortable surroundings. These were found among the middle classes, the denizens of cities and villages. Men raised on farms, men accustomed to hard labor from childhood, work-hands from mills and mines, for all their apparent robustness, succumbed more quickly and in larger numbers to the privations of military life. Their stores of vital force had been impaired by the reckless drafts made upon them in earlier life.

The foundation of a long and happy life must be laid at the beginning, indeed it should be based on the lines of several generations behind us, for a great deal depends on the physical and mental attributes of our ancestors. We should, then, understand that we can economize our vital energies, and that the length and usefulness of our years are in our own keeping.

If we study into the secrets of life, and are valiant and strong enough to thoroughly control our habits, our appetites and desires, if we determine to be more the master than the creature of circumstances, we may govern the term of life as well as the manner of it.

Nature and the Will.

It is wrong to be sick, ailing, inadequate for the activities of human existence. Much depends upon what we will to be, and on our will being in accordance with the laws of nature. Nature always resists disease, and goes about her work of healing as soon as conditions will permit. A calm, well balanced frame of mind, the needful rest, the right amount of nourishment, pure air and cleanliness will almost always insure speedy recovery if no organ of the body is seriously wasted or injured. Medicine alone does not cure. It may bring the organism into a condition wherein the healing process may proceed; it may banish the consciousness of pain which may be so intense as to interfere with the restoring work of Nature—though pain itself is an evidence of Nature's endeavors to cure—but it cannot do the work itself. The flow of life forces accomplishes that.

We must learn to live naturally if we would make the most and best of ourselves. We should eat simple food—that which a normal appetite most desires—and we should eat in moderation, never greedily or hastily. We should sleep as much as nature seems to demand, and no more. We should breathe correctly, in a way which experience and observation prove are most conducive to health and strength—therefore most natural. We must labor and exercise enough each day to keep our living machinery in good order; *we must keep our bodies clean;* we must wear such clothing and live under such

shelter as reason and experience convince us are best for our welfare. We must feel kindly toward all mankind, and we must dwell upon the most hopeful and promising aspects of our external conditions, keep cheerful and avoid all needless worry, anxiety, or feelings of anger, jealousy or revenge.

An indulgence of acquired appetites or inherited abnormal tastes has a tendency to shorten life. But the natural, healthy man may satisfy his ordinary appetites as he will and feel no evil effects. A person starting out with a strong constitution, living under favorable conditions, may live to a hearty old age and tell us that he has followed no special rules in eating, drinking, exercising and resting, but has trusted to the instinctive demands of his nature. Where nothing had ever come to pervert the appetites and desires, these could be depended upon. In a case of this kind, it would probably be discovered that the habits and mode of life were those which the combined wisdom of all the past and present pronounce helpful and natural.

Those who have lived wholesome, natural lives for a number of years, find, when the emergency arises, that they can endure a season of hardships better than one who has weakened his constitution either by over-indulgence or by overwork and insufficient or unwholesome food. Such a one can face the influence of an unhealthful climate, of poor food and unusual exertion, without being appalled. His reserved strength and vitality, especially if he brings a brave demeanor and a cheerful, determined mind to bear upon the situation, will carry him through any ordinary trial. The one who habitually lives according to Nature's laws, may, if he brings a peaceful, confident mind to the occasion, safely eat bad food or none, for a time, endure cold and wet and hard work, and suffer little or not at all.

People do live under conditions which are startlingly unfavorable up to and past middle age. They astonish others by the great amount of work they perform, by the little sleep they take, by the coarse food upon which they manage to subsist; they seem hardy and tough, but a sudden collapse is sure to come before the time allotted for a natural life. They have lived on their capital of health and strength, and suddenly they meet the appalling realization that they are bankrupt. They can make no assignment and begin over, for each individual possesses only his own portion of vital power. When once destroyed or wasted it cannot be restored.

True it is that economic conditions at present do not allow men and women to live as they should. The majority of people work too hard and are forced to subsist on too little; they have no means of cultivating their mental and moral natures; they breathe poisoned air, and they cannot keep their clothes and their bodies clean. But in Nature's domain there is no real lack. She furnishes food in abundance in return for a little labor;. she affords fresh, pure air, earth space, beauty, joy. Only through man's bad management is there an apparent lack of any of these things, for never has humanity pressed too closely upon her bounteous resources. Man can restore the equilibrium of demand and supply if he will. If the minds of the people everywhere will comprehend that each and every one has the right of access to Nature's gifts, and that such restoration must and shall be made, *it will be done.* How, this is not the time to try to tell. Thought force has accomplished all that civilization boasts of today. It can accomplish much more if directed right.

Too much luxury and too little work are as bad as want and too much toil. The rich man or woman who has only to conjure up a new sensation, new appetites to gratify, is no nearer

health and true happiness than the toiler whose products he enjoys. The out-of-work man who is denied a chance to labor has even a better show, for he lives close to Nature, because he must.

Making the Best of Life.

But every one can make the very *best* of his opportunities. He may believe that life is not so full of happiness that he cares to prolong it, but he should remember this: that while he lives he will enjoy more happiness and confer much more happiness on others if he is well and cheerful and in possession of all his faculties unimpaired. There was once a time when it was considered commendable to be sick; it indicated delicacy, and called forth the active sympathies of friends to the extent that an invalid was quite a sovereign in a household. But we know today there is nothing honorable in being sick. Indeed it is something to be ashamed of; for willingly or unwillingly, knowingly or ignorantly, some of Nature's laws have been broken, and one is paying the penalty. We have no right to inflict ourselves helpless, weak and despondent upon our fellow beings, if we can possibly avoid it. Still, if one must be ill, it does not better matters to pine and lament that one must be a burden. Receive the loving care of friends cheerfully and frankly, and encourage them by your own lightheartedness in accepting the situation. The world is beginning to acknowledge that one's greatest happiness is found in what one bestows upon others, not in what one takes from them. And the good one can do, the happiness that may be conferred upon others, the peace we may ourselves know in the course of a long, active, wholesome life are incalculable. To live rationally, to preserve all the faculties at their best, down to the last, is worthy of one's best and highest endeavors.

The young are usually happy in their very inexperience. The vital forces pulse through their veins with the delightful spring of youth, and their spirits bound with eagerness and anticipations of the beautiful, untried world before them. The older people should find happiness in sympathizing with and sharing their pleasures; they should know how to direct and restrain amiably and agreeably, and to give them the benefits of their richer experience without autocratically reproaching them for their ignorance and heedless errors. A natural leader will be willingly followed, while a domineering ruler will arouse feelings of resentment and rebellion. One who is dogmatic in giving instructions concerning eating, drinking and physical exercise is seldom heeded. Courteous, kindly suggestions are wiser and more effectual.

One may determine early in life to keep young in feeling, interests and sympathies, and if these resolutions are firmly adhered to, until the *habit* of cheerfulness is well established, others will never remember that he or she is growing old. Women have preserved their loveliness and attractiveness until past the age of eighty; and men have drawn about them the brightest minds of their day, all eager to listen to the rich and lofty sentiments of well stored minds, until the last years of a century of useful life closed upon them. These enviable characters have ever been genial, simple in their tastes and habits, sympathetic, progressive. Their minds are never allowed to ossify, nor their bodies to decay. To show what women may be throughout a long, lovely life, we give this illustration:

Jane Clermont, that beautiful woman beloved by Byron and adored by Shelley, died not far from ninety years of age. Her eyes, her figure, her color and teeth remained perfect, her abundant hair, whitened by the years, only made her the

lovelier, and she was charming in her manners always. Throughout her long life she invariably ate sparingly, and only simple foods, and she went out every day; above all, she always maintained a keen interest in youthful persons, and delighted in fresh and fine thoughts, whether they were expressed in books or conversation. Indeed, she was to the very last a most fascinating companion for both the young and the mature. It never occurred to those about her that she was not as young as they. Her society was so eagerly sought that she was compelled to deny herself daily to an access of visitors who were anxious to enjoy her brilliant conversation, infectious laughter and graceful personality. She always reserved an hour in every day for solitude and absolute repose of mind and body.

PART IV.

CHAPTER II.

"Breath is Life."

ND He breathed into his nostrils the breath of life; and man became a living soul."

Breath *is* life. To breathe is to live, and all things that live breathe inwardly the great living forces of the universe, and outwardly the matter that has done its work and is sent back into the great reservoir of life to be renewed. The trees and plants take in the gracious air, the very earth breathes, and the ocean swells and subsides in rhythmic movements. To know how to breathe in the fullest sense is to be well and happy and strong.

People who live close to Nature breathe more correctly and are less liable to disease than the civilized who have not learned that true enlightenment takes us back again to Nature's methods. The North American Indians habitually "keep their mouths shut," and are therefore among the hardiest races in the world. They breathe deeply and *fill* their lungs with every breath; and health and strength flow in with the pure air they absorb.

Correct Breathing the Basis of Bodily Health.

We possess a proper organ for breathing, and it should be used. The mouth was never intended for that purpose, and incalculable evils result from this misuse of it. It has been found that Nature provides an arrangement of fibers for

straining the air before it is permitted to touch the sensitive linings of the head passages, throat and lungs. These fibers grow inward toward one another and prevent the entrance of the minute, invisible enemies to health which seek to find lodgement in our bodies. The natural warmth of the nose moderates the temperature of the air in cold weather, and is in every way so finely constructed for its purpose that in its proper use health and a long life may be secured with little aid from drugs or other outside props and supports.

The people of the East believe they can solve the secrets of life and learn to control all matter by learning to breathe aright. The Yogi breathing is a part of a course of discipline by which the "adepts" attain their mastery over natural forces. Their peculiar breathing exercises are practiced daily; they can send the breath to any part of the body, and bring about such effects as they will. They believe that there is more in common air than a mere combination of oxygen, hydrogen and nitrogen; that by rhythmical breathing one brings himself into harmonious vibrations with the higher powers, and the essence of life itself can be grasped. They can, by a long course of breathing exercises, banish sickness, sorrow, evil and despondency, and can control, in time, not only themselves, but matter and the forces by which matter is moved. A number of people in this country have taken up the study and practice of Yogi breathing, with, they claim, remarkable results.

A prominent physician has written a large book on correct breathing. He claims that on the manner of breathing depend not only our health, strength and happiness, but our morals, our spiritual growth, our powers of self-control, even the duration of life as far as we will to live. All the universe vibrates, and if we would be attuned to its higher forces, we must learn to vibrate, through breathing, harmoniously with their vibrations.

Whether true or not that all may be gained which the occults claim, it can be demonstrated that correct breathing is the basis of healthy living. George Catlin, who spent thirty years among the North American Indians and knows probably more about the habits and customs of aboriginal tribes than any other man living, says that civilized man owes to his unnatural modes of breathing the readiness with which he contracts all kinds of contagious diseases. He has written a work entitled, "Shut Your Mouth and Save Your Life." He says in this book that, ignorant as the squaw mother is of what constitutes the knowledge pertaining to civilization, she seems to know intuitively that the nose is a protection to the delicate inner passages, and should be used to breathe through. The first discipline of the little pappoose is to prevent the lazy drooping of the lips, and to compel it to breathe through the nostrils. She tips the head forward and covers the mouth when the child is asleep, and gives him instructions as soon as he is old enough to understand.

The majority of contagious diseases, as well as colds, catarrh and malarial affections, may be avoided to a great extent by keeping the mouth closed whenever it is necessary to inhale impure air. People should not talk in an atmosphere freighted with impurities, or when its temperature is very low. They should not only breathe through the nostrils, but should overcome any habit of allowing the lips to drop apart, for it allows a ready ingress for microbes or poisonous or foreign atoms which may be floating in the air, especially where dust is flying about. It affects the expression of the face, unpleasantly suggesting ill-breeding or an intellectual lack of some kind.

Breathing through the mouth is most dangerous at night, when noxious gases most abound, and there is no sunlight to

THE SILHOUETTE—Aug. Mandlich.

THE BILLET DOUX—E. Munier.

dispel them; cold is felt more keenly at that time and the dampness is more irritating. If the determined will is not sufficient to insure correct breathing through the hours of sleep, a pillow should be arranged so as to tip the head forward, or a bandage placed over the mouth. A thorough course of self-discipline may be necessary to fix the habit of correct breathing, especially if there is an inherited tendency, strengthened by custom, to breathe carelessly with the mouth open. But the effort will be well worth while for the added health, beauty and vitality acquired. It has been ascertained by the observation and experience of army and navy officers that men who habitually sleep with the mouth open are much more subject to contagious diseases than those who do not. Indeed, in one instance, where a man-of-war was stationed near a far-away coast, and the small-pox became epidemic, only the sailors who had never been trained to shut the lips in breathing succumbed to the disease.

Correct Breathing.

Deep and regular breathing promotes good health, and is a strengthener for the weak. It expands the lungs and fills out the chest, while more oxygen and ozone are carried into the body. Short, gasping, uneven breaths are hurtful; they keep the nerves in a tumult, and keep up a discord in the system. The organism cannot adjust itself to spasmodic breathing, and the calm, confident poise so necessary to good health and happiness cannot be attained. Adepts in breathing attach great importance to *regular* respiration.

By breathing slowly, evenly and deeply for twenty minutes or half an hour, when one feels the symptoms of a severe cold coming on, an attack of pleurisy, congestion of the lungs, or even pneumonia, may be entirely thrown off. One should

sit comfortably in a reclining chair, the shoulders well back, the hands folded in the lap, the muscles of the limbs wholly relaxed; one should then inhale deeply, slowly, through the nose, and exhale in the same manner, at regular intervals. The air should be as pure and fresh as it is possible to obtain, and not warmer or much colder than 68 degrees. The lungs will, by this exercise, be able to clear themselves of foreign matter, and the muscles of the chest regain their flexibility. This is one of Nature's remedies, and, when her laws have not been too violently entrenched upon, is the best of cures.

A fine exercise for the preservation of health and the gaining of additional vigor is to fill the lungs with fresh air every morning and evening in this manner: Stand erect, with the heels together and the toes pointing outward. the knees stiff and the arms hanging with inclosed hands close to the side. The shoulders should be thrown back as far as possible, the chin held up to stretch the neck, and the lips should be firmly closed. In this position, raise the body slowly upon the toes, inhaling deliberately; maintain the attitude as long as it is not uncomfortable, then slowly sink and exhale the breath. Do this once more by standing on the right foot alone, then the left. This exercise includes but three long breaths, which are perhaps sufficient for beginners. As one grows more accustomed to it, the exercise may be repeated three or four times. An Indian might run a mile, or a denizen of the forest chop down a tree before breakfact, to obtain the same results, but the town and city resident, accustomed to sedentary pursuits, will find this sufficiently difficult at first.

Many afflictions, not generally supposed to be connected with the manner of breathing, may be traced to bad habits in taking one's necessary oxygen, such as the bad formation and arrangement of teeth, their decay, facial neuralgia, etc.

The gums, teeth and tongue become too dry during the hours of sleep if the mouth is kept open, and various diseases of those organs are brought on.

Let us strive to secure pure, fresh, deep, regular breaths of air for each moment as it passes; then may we pray with a clear conscience for our "daily bread." For next in importance to breathing is the nourishment that sustains our bodies in the activities of daily life. Pure air and pure food and our manner of taking them are wonderfully significant in preserving health and vitality.

PART IV.

CHAPTER III.

How, When and What to Eat.

SOME eminent physicians have declared that the quality of food does not matter so much as the quantity and the manner of eating. One has said: "Even the widest selection of food is inoperative as a remedy for our bodily ills, without due care and deliberation in mastication, and also a proper mental mood for eating." Many people have become convinced in recent years that in general we eat too much. In this one particular we cannot take the natural man, the savage or the Indian, as a model; for the more civilized and enlightened a man is in its true sense, the less is he likely to gormandize.

The refined and cultured eat simply and sparingly, never of heavy, rich foods, though a class of fashionable, self-indulgent people may still consider it luxurious and proper to dine on elaborate, highly seasoned dishes to the point of gluttony. They have but gone back to the habits of primeval man, who gorged, when he might, until he could no longer move, and required his women to feed him. But this creature could fast for days, if it was necessary, and suffer no inconvenience. Natural man would have acquired more rational methods of eating had the supplies of food been constant and regular. But in the days when their fortunes in the chase or on fishing ex-

peditions must determine their supply of provisions their systems were compelled to adapt themselves to the conditions; they learned to eat enormously when they had food, and to fast patiently when it could not be secured.

Men of the middle ages, when the militant spirit was most dominant, were little better. In the long, terrible wars, when food was often a matter of chance, or depended upon the success or failure of armies, men ate, when the opportunity presented itself, as long as anything remained. The literature of less than two hundred years ago gives us pictures of gigantic feasts where whole oxen, sheep, pigs, roasted to a turn and flanked by flagons of strong ale, adorned the table; we are told how men ate and drank until they fell to the floor to sleep away the effects of their gluttony. Indeed, but one or two generations ago the virtue of hospitality was to tempt the guest to eat to his fullest capacity, and the test of manliness was to be able to swallow anything and everything set before one. Only within the last century have moderation and method in eating been seriously taken up in a scientific manner. The tendency has been in the past, when disgust has sprung up from over-eating, to go to the other extreme and eat coarse and unpalatable foods in most abstemious quantities. But this is as bad as too much indulgence. There is consistency in all things, and there must be a rational, logical theory of nourishment which can be reduced to a practical system.

We might depend upon our normal appetites, only that the mixture of races, the complicated foods, the bad habits of an over-heated civilization, have deprived us of normal appetites. We can only judge by experience and observation after long years what kinds of food are best calculated to promote vigor and the normal action of all the organs. Even when we

discover what is in general best adapted to human requirements, we do not know what varieties suit different individuals, and this must be discovered by each for himself. Experiments should be made rationally, however, with the aid of such knowledge as has been gained by others, in regard to the effects of various foods and the peculiar elements needed by one's system. Age, occupation, inherited tendencies, temperament should be taken into account, or one's experiments may result in discomfort, shattered health and loss of vitality.

Three Safe Rules in Eating.

Aside from the kinds of food to be eaten, there are three rules that can be safely adhered to by every one.

One is not to eat too much—to cease eating before the feeling of being filled to repletion is reached.

The second is to eat slowly, in a calm state of mind, and masticate every mouthful thoroughly.

The third is never to eat and drink at the same time. Animals do not drink when they eat, and our reason should guide us, if instinct does not. The desire to drink while eating comes from a hurried, nervous gulping of food. If one had all his life eaten deliberately, chewing so slowly that the natural flow of saliva sufficiently moistened the tongue and throat and the food, he would probably never thirst for drink while eating; but generations of perverted habits have changed the natural appetite, and it cannot now be depended on to always direct aright.

Even as it is, it is safer to trust to a child's appetite than to an unscientific mother's arbitrary decisions. Many housewives consider discipline, or the carrying out of their own theories in regard to nourishment, more important than their children's taste. They provide what is most convenient to

themselves or what they believe is best for their children, and, though their palates may rebel, the little ones are compelled to eat it. To force a child to eat food it does not want is cruel at the time and often results in irremediable consequences later on. It is wise to withhold certain things known to be injurious, for the child can have no definite craving for something it has never tasted—only a general curiosity to experiment on whatever it sees. But it should never be forced to eat what is distasteful to it. Many children die young solely from the conscientious but unwise course of mothers; others go through life with impaired constitutions, debarred forever from the enjoyments of good health.

Variety in Food Desirable.

We have grown to be a complex people. We are the descendants of many different nationalities, each possessing different tastes according to the climate, products and necessities of their country. Our own climate is variable, our products infinite in kinds and quantities; we have developed capricious, discriminating tastes, and we do not thrive on any one diet, as do, for instance, the eastern people, who can subsist on rice day in and day out all their lives. They wonder at us that we pander to our comprehensive tastes, and cite their own simple living and natural lives as examples of wisdom. But they forget that while in their country custom, climate and caste have fixed the taste in food for centuries, we are a mixture of nearly all the nations of the earth, inheriting their natural and cultivated tastes, while our commercial systems have brought the foodstuffs of the world to our own doors and bade us choose among them. We would no longer thrive on one or two articles of food, and experience and reason teach that variety in food enhances our welfare.

Still it is possible to modify and simplify our diet, if it has been too rich, too complex or too heavy. Culinary art has heretofore run too much to decoration, and to toothsome delicacies calculated to tempt satiated appetites. There are visible signs that in the near future cooking will be studied as a science, and more regard will be paid to suitability, proper chemical changes, wholesomeness, than to richness, elaboration and the exciting of abnormal appetites. We will eat more simply when that time comes, but our tables will look more beautiful. For what is more artistic than the commingling of fruits in a natural state, nuts, crisp, tender vegetables, and light grain cakes formed from scientifically prepared flour?

But whatever changes we make must be made gradually and carefully. Sudden alterations may cause disturbances in the system difficult to overcome. The body, after having adapted itself to a certain diet, does not readily adjust its functions to an entirely new course. Each one must be guided by his own judgment and knowledge of his body's needs, not by what fashion or theories dictate. Corn-meal is liked and easily assimilated by some, while to others it is heating and indigestible. Graham has been considered wholesome, as it was thought to maintain a natural condition of the alimentary passages. But this is a mistake. The fine edges of the grain cut lightly into the delicate surfaces of the viscera, causing a moisture to exude which facilitates the passage of digested and undigested food. So great are the healing properties of the natural forces that no injury seems to result for many years. But the damage manifests itself sooner or later.

Vegetarianism.

Vegetarianism benefits some people, but it should not be insisted upon, for our minds are various and complex, and

fruits and vegetables do not always furnish all that the system requires. The animals digest several varieties of vegetables which we could not assimilate, and their flesh contains the results of processes not possible to us. But all meat should be thoroughly masticated. The importance of this cannot be overestimated. Only when the digestive organs are worn out trying to pulverize tough flesh fibers, and it is too late, do many of us realize this.

Never urge the appetite; follow its leadings as it is unperverted. Take no "appetizers," and do not crowd the stomach. It is best, as a usual thing, to eat sparingly of sugar and candy. On account of the starch contained in bread, sedentary people should eat little of it. We should not chill our stomachs with iced drinks or flush them with hot washes. And while we still adhere to the custom of putting into ourselves the conglomeration of foods we do, above all, let us *masticate* them well. We should not eat when excited, tired, nervous or angry. Wait until calm, even if we miss a meal or two, and good health and youthful vigor far into old age will be our reward.

We eat to sustain life, and if we eat wisely, we will be healthy and live long. We must adapt our food to our age and occupation or calling, and to the temperament of our systems. This may seem an indefinite bit of advice, but we each have an inborn instinct which will guide us in such matters, if we will allow ourselves to be guided. This infinite guiding instinct is true of botanic life as well as animal life. The little growing vine directs its course wisely and clings to the nearest support. We eat to live, and life is warmth, development and repair, and gives us the power of exertion and action.

Food the Fuel of the Body.

In all the countries under the sun, in youth or old age, the human body, when in a healthy state, maintains the same temperature, ninety-eight degrees Fahrenheit. Food acts as a fuel to us, as the warmth of our bodies is derived from food. Sugars, starches and oil are concentrated forms of carbonaceous food, and some of them are composed mainly of this element. Many persons are greatly concerned over the large amount of sweets devoured by young children, but without this element of food it is said that the healthiest infant would die in a short time. As we grow older we covet the meats and oils more. Who has not noticed the grandmother's fondness for a bit of the fat with her steak? It would be just as unwise to deprive the old of the luxury of some nice bits of fat as to deny the child the sweets over which he makes himself a gourmand. As reason is the guide in these matters, this accounts for over-indulgence in children, and it is not the sweets which make them sick, but the indulgence to excess which makes the trouble. We should not eat by fixed rules or measures, as this is not natural. We also eat for the generation of those internal forces of brain and body which constitute our efficiency as immortal beings. As food gives nourishment, and this includes warmth, growth and repair, and gives to the brain and body strength and power to work, we must learn that it is necessary for us to have different kinds of food; although milk, eggs, etc., have more than one element.

Three things are essential to our daily food. These are carbon, to keep us warm; nitrogen, to give us strength and flesh; and salts, which combined with carbon and nitrogen make them nutritious.

The power to perform bodily and mental labor must be sup-

from its resemblance to the albumen, the white of an egg.

The blood is made by foods containing albumen, and as the blood is life, foods which build it up sustain us best. This is why bread is called the staff of life. Thus foods which contain a large amount of carbon would not build up the blood and strength and enable us to accomplish a great amount of labor. It is not always the size of a man that is to be taken into consideration when looking for a good strong laborer, but the size of his appetite is a very good criterion, for a man with a good appetite will be able to do a good day's work if not hindered by some bodily condition or infirmity. A good brain-worker should eat well, also, for, if debility of body sets in, the brain will consume itself because nutriment is not supplied to it fast enough through proper food and a healthy, vigorous digestion.

The Right Times for Eating.

It is best that all who wish to be healthy and prepared for their day's work should eat a hearty breakfast, that is, a breakfast of nourishing food. For instance, a man may eat a hearty breakfast and ride through a deadly marsh without harm, while if the man crossed the marsh without first eating his breakfast, he would likely die of some malignant fever within a short time. Food stimulates us as soon as it reaches the stomach, as it calls into activity the circulation of the blood, and in a short time the whole body receives and feels the strengthening influence. As the body cools down rapidly when food has not been taken for some time, the early breakfast in winter is especially healthy for old persons and children, as it is a promoter of health. If a person does not have an early breakfast in winter, it takes longer to raise the natural heat of the body, and as no work can be accomplished to

work can be accomplished to any purpose until this internal heat is brought up, the earlier the breakfast the better.

As there is a "miasm" or impure element in the early morning air, and this same element is present after sundown, presumably the healthiest time to eat supper is shortly before sundown. The healthiest dinner hour is at noon time, as the morning work brings an appetite at that hour, and a quantity of food taken at that time sustains the body for the afternoon work.

As the stomach is composed of muscles it is called an organ or machine, and in a healthy condition performs the work of digestion, so far as it is concerned, in about five hours, so that most individuals will at least find it pleasant, if not convenient, to eat every five hours.

As soon as the food is digested by the stomach, it passes out and leaves it empty for a time. In an hour or two, certain vessels connected with the stomach fill with a fluid, and as they distend they cause the sensation of hunger, which makes us wish to eat again. As soon as we partake of food, they empty their contents among the food, dissolving it and preparing it for nutrition. Thus it will be seen that if food is taken into the stomach before it is emptied, it will arrest the digestion of the first food taken, which remains in that condition until the last food taken in is brought to the same condition, when both go on together. If the food remains in the stomach too long it sours, on account of the high temperature of that organ, and this causes improper and imperfect nutrition.

CHAPTER IV.

Sleep and the Bath.

WE *live* only in our waking moments, we imagine, and sleep has been called "the twin sister of death." Yet life's activities would drag heavily were it not for "Nature's sweet restorer, balmy sleep." In sleep we are "created anew day by day." But it is important that conditions for sleep be made favorable, or sleep becomes an enemy which lays its victim helpless while poisonous vapors and disease germs get in their deadly work. We must sleep; or power wanes, courage ebbs away, and the mind becomes weak and confused. If one cannot sleep at all, insanity and death ensue. One will suffer more from loss of sleep, before relief comes by death, than from inanition.

We cannot bestow too much care upon our preparation of sleeping-apartments. Too often the little corner that cannot be otherwise utilized will be dedicated to sleeping-rooms that cannot be flooded with light, swept by pure breezes, and warmed by the sun's health-giving rays. This is bad economy, if one values good health. Exhalations from the body linger in the bed clothing until purified by plenty of oxygen.

Proper Sleeping-Apartments.

Bed-rooms should be light, airy, and not too small. They should be comfortably but not showily furnished. Only arti-

cles of use should be permitted in sleeping-apartments; decorations should consist in the cleanliness and freshness of the appurtenances. Heavy drapery, tidies, nick-nacks which catch and hold the dust, are in better taste in other rooms. The walls should be of some soft, neutral tint, and such ornamentation as is allowable should be quiet and simple, so as to be restful to the eye. Means of ventilation should be as perfect as possible, that proper respiration may be insured.

It is more pernicious to keep a dark bed-room artificially lighted than to allow it to remain in the shadows. Gas-jets, candles or lamps consume the little pure air which finds its way into close rooms, and should be prohibited. They should be as little used at night as possible in all sorts of rooms, for the same reason. Gas-jets turned low are more harmful than when the blaze is turned on fully, since the poison inevitably escapes when burning low. A faint jet of light in a lamp will destroy all the oxygen in the air faster than will a full blaze. One should remember exactly where the lamp stands and keep a few matches at hand, rather than vitiate the air with the smoky wick of a low-turned lamp.

A person with weak lungs should sleep in a large room, where currents of pure air may constantly sweep around, above and below the bed. A tent, or a roof without walls, is still better. In the pure air of the higher regions consumptives sleep in the open air in hammocks swung among the pine trees, with great benefit. The open air is never hurtful if one is warmly wrapped in light and fleecy blankets.

The clothing of the bed should be aired daily, and very frequently hung on a line in the sunshine. The filling of mattresses and pillows should be subjected to 150 degrees of heat, a temperature which will destroy all decaying substances, and not injure hair or feathers. Fresh air is a great disinfectant.

Plants without flowers have been recommended, because both in daylight and darkness green vegetation throws off oxygen, and absorbs impurities and carbonic acid gas. Flowers and ripening fruits consume oxygen, and should not be brought into the room where an invalid or an infant is sleeping, nor should they long remain in a healthy person's sleeping-room.

A bare hard-wood floor, with a few soft rugs placed where comfort or convenience demands, is much neater and more wholesome than thick carpets, which secrete dust and bad exhalations. The rugs are easily shaken, the floors quickly washed off; and the housewife is not so afraid of letting in sunshine and fresh air if there are no curtains and tapestries to fade. Papered walls are not advisable, as they gather dust and impurities. A hard-finished wall from which the effects of flies and other insects can be washed is much better.

Flannel sheets should be used in the winter, and even in the summer thin baby flannel or woolen batting is preferable to closely woven cotton or linen sheets. Flannel blankets for invalids, when the weather is cool, are better than quilts or cotton comforters.

How Long One Ought to Sleep.

The time to be consumed in sleep varies in different people, but it seems that a third of the twenty-four hours of the day may be profitably passed in invigorating sleep. People live, work hard and appear to keep robust for many years on less sleep than this, but they are more certain to break down young than those who sleep well their eight hours daily. Many boast of doing with five and six hours, but they do so with hollows sinking under their eyes and wrinkles tracing telltale lines in the forehead.

There was once an old author who wrote a large philosoph-

ical (?) book on everything in the universe and some things that are not there at all, who upbraided people desperately for wasting so much time in sleep. He advised his readers to rise at four o'clock every morning and begin to study. If work were necessary, it might be done through the busy, noisy part of the day, but with the quiet of evening they were to commence their studies again and pursue them until 12 o'clock at night. Thus, he said, one might snatch a third of a lifetime in the hours idly spent in sleep, to devote to the acquiring of wisdom. But hours thus stolen from those that Nature requires in which to repair the wastes going on in wakeful hours must some time be repaid. The end of life comes all the more quickly, when there will be no choice as to whether you will sleep or remain awake.

When to Sleep.

"Early to bed and early to rise," is no doubt a wise admonition, or was in the day it was spoken, for artificial light was crude and scarce, there was no temptation to prolong the activities of the day into the darkness of night, and people's constitutions were adapted to the natural division of the day. But the inventions of modern times, which afford the brilliancy of the day during the night, have lengthened the time of action. We have developed more social pleasure, and acquired a faculty for working, studying, improving and enjoying until after daylight ends. Perhaps we have shortened our years by so doing, but it would be impossible, even if we would, to get away from gas-jets and electric lights, back to the "tallow dips" of old times. Nor is it desirable, if we will yield something to Nature's demands and resist the temptation to remain awake, using our brains and nerves until long after they rebel with weariness. If we will but sleep *enough,* Nature will for-

give our breaking of the old rule, perhaps, and adjust our systems to suit the new conditions.

We certainly ought not to curtail the hours of sleep at both ends of night, and if we will not retire early we ought not to force ourselves to rise too early. We feel in these modern days like repeating with John G. Saxe:

"'God bless the man who first invented sleep!'
So Sancho Panza said, and so I sing.
But condemn with curses loud and deep
The man who first invented early rising."

But the earlier hours of the night are certainly best calculated for sound and healthy slumber. We find ourselves more cheerful, amiable and better-looking when we *can* go to sleep early and wake with the birds. Late hours set up a kind of stimulated activity within us, and we find it difficult to fall into sleep directly upon retiring. We are wakeful, and grow "nervous" presently *because* we can not, and sleep is driven farther away than ever. Our muscles are at a high tension, and often the hands are clenched tightly and the teeth ground together.

To induce sleep, rise from the bed and rub the body from the head downward with the open palms of the hands. Then lie down in an easy position, relaxing every muscle, and banishing with determination every disturbance of mind. Breathe deeply, regularly and slowly through the nostrils, and picture a field of waving wheat or tall grass, rising and falling in soft, billowy motions, or a peaceful lake lapping the shore gently, and no sign of life present. The monotonous, undulating sensation will affect one like a soothing lullaby, and sleep will soon follow. Often a walk in the open air, taken immediately before retiring, will induce sleepiness. To struggle for sleep,

to long for it too intensely, is to banish it. Gentle thoughts of pleasant, simple things are found to be more effective.

It has been ascertained that within the human organization there is an ebb and flow of vital forces, as there is in the sea. Mental or physical exertion performed during the low period of activities is at the expense of man's stored-up strength, and can never be replaced. At ten o'clock at night man's energies have greatly relaxed; between the hours of one and three they are at their lowest ebb. All the faculties should be at rest from a little after ten to six or seven the next morning. One should at least assume a reclining position, relax the muscles and banish disturbing thoughts from the brain after the hour of ten.

If one's sleep has been satisfactory, one will wake in the morning refreshed, and experience, after a few minutes, a desire to begin the activities of the day. If there is a tendency to doze after it is really time to get up, it is usually a sign of over-eating, of insufficient air, or improper respiration. A normal, sound and strong person may be trusted to sleep enough, and not to sleep more than his nature requires, if conditions are favorable. The occupation of many people prevents sleep during the hours especially suited to slumber, and they are compelled to adapt themselves to odd hours. No doubt this changing of night into day detracts from the vitality, and materially shortens life; but if such a worker will train himself to fall into slumber quickly, and to catch readily at any opportunity for a few minutes' repose, he can preserve his strength and health to a great extent.

Sleep is a restorer; and sometimes excessive sleep seems essential. In cases of weakness, exhaustion, relief from pain, the inclination to prolonged slumber is sometimes remark-

able. But the patient should not be aroused, for Nature understands her work, and furnishes what is needed.

Never awaken a sick person to administer medicine. No medicine can aid Nature so much as healthy sleep. If in an extraordinary instance a child or patient should sleep much more than seems reasonable, do not strive to arouse him with rude shocks; he requires medical attendance.

Cleanliness is Godliness.

Having bestowed proper attention on respiration, nourishment and repose, we should give due regard to keeping the body pure and clean. Cleanliness is next to godliness, and indeed *is* godliness—purity. Water is as essential to good health and happiness as good food and pure air; but the method of applying it has as many phases, and may work injury or benefit, according to the manner of using it, as with these necessities. Water is a blessing to us, a restorative, a remedy, it soothes and cleanses us—yet it may be used in such a way as to prove itself an enemy. With a little knowledge and the exercise of reason there is nothing to fear.

The principal purpose of a bath should be cleanliness. But, from the number of those who shock themselves daily with quick cold-water plunges, shower baths, etc., one would judge cleanliness were the last object sought after. These may be endured by many, even prove beneficial to robust, warm-blooded people; but they do not cleanse. And the person who depends upon these means alone will be surprised, on taking a Turkish bath or a good warm bath of any kind, to find how *dirty* he really is.

Cold baths are not to be condemned indiscriminately. A pint of water but little colder than the air of the room, rubbed briskly over the body with the open palms, followed by a vig-

orous toweling in the morning, will set a healthy person in a glow and establish a cheerful, animated poise for the whole day. But if one shrinks from the water instinctively, if there is a chilled sensation, and the lips and the ends of the fingers turn blue, then cold baths should be tabooed. As one may keep up a course of slight injury to himself in eating or overworking for years without perceptible consequences, so one may take a cold bath daily, chilling the blood slightly each time, and feel tolerably vigorous. But the strain on the system is too great, and sooner or later evil consequences will be felt. Very delicate persons should not indulge in cold baths, because they do not possess sufficient vitalizing reaction. Even those who have in reserve a great deal of constitutional vigor may feel the effects some time.

The Proper Manner of Bathing.

The proper way to bathe so as to eliminate all the exudations from the skin is to have an abundant supply of soft, clear, warm water, good soap and the means for a thorough rubbing. One should wash until *clean;* then rinsing off with clear warm water, followed by a mere touch of cold to give tone to the system. Rub with good bath towels until thoroughly dry, and the true object of a bath will have been attained.

Very warm baths, indulged in too frequently, are weakening. Some people cannot endure entire immersion even in warm water, as it disturbs the action of the heart; these should plunge the feet in heated water while the rest of the body is being rubbed with the hands or a sponge. For a cold or an aching condition of the body, a very warm bath at night is beneficial. Sitting in a large tub of hot water, with a blanket about the shoulders, for twenty minutes or so, is an excellent

remedy for a hard cold, or as a preventive after severe exposure. But one should retire immediately afterward, and cover warmly with flannel blankets.

Impure water is as deleterious to the skin as to the stomach.

If the water is doubtful, add a little sal soda, borax, or, better still, ammonia. Vegetable soaps are best, and for delicate skins those soaps which contain little alkali in proportion to the quantity of oil should be used. Scented soaps should be avoided, as they are not so apt to be pure, and artificial odors are not always pleasant.

Elderly people should not indulge in baths of too long duration; in fact, every one should bathe in a manner most desirable and most comfortable. It is never best to urge against shrinking nerves any kind of a bath; as a usual thing, the feelings are a safe guide. Many people welcome a warm bath when weary, some feel refreshed from a cold one, while others cannot think of it until after a rest on a couch. Generally, bathing when tired is exhausting.

Sea-bathing is a delightful and refreshing exercise to most people, but when a chill follows a plunge the bather should be careful. One should become accustomed to the salt atmosphere before going into the surf; only after several days of taking the sea air into the lungs is it safe to plunge into the brine. Then the trial should be brief and followed by a speedy drying. If a sense of warmth comes immediately, one is safe to try again, but if one's lips turn blue he should make up his mind that the salt water is no friend to him, or that his condition is not such as to take kindly to that treatment.

As a substitute for sea-bathing, saturate a flannel cloth in water well impregnated with sea salt, dry it and use daily after a warm bath. It is very beneficial to the weak who cannot endure sea water. When lives have been despaired of a

rubbing of sweet oil, almond oil or cocoa butter well into the pores of the skin has furnished the necessary nutriment and stimulant, and saved them. But this should not be resorted to except in extreme cases.

There are various kinds of baths of hot and cold water, wet sheets, and packing, that are effectual remedies, but they should be understood and given with as much care as one would administer medicine. Therefore only trained nurses should apply them, when cases seem to call for such treatment. It is safe to give, as a general rule, a cold bath in fevers; in great pain and in cases of inflammation, hot water applications.

The human civilized being *must* keep clean. The savages do not often bathe and are not particular about a little dirt more or less; but their open-air customs compensate for their lack of cleanliness to a great degree, though they would not succumb to certain epidemics so readily if they were more addicted to washing themselves. Aborigines who live near the water use it daily. No doubt the absence of cleanliness among some races arises originally from a lack of water. But the conditions of civilization make cleanliness imperative; retribution comes quickly to those poor people who crowd together in cities, and who cannot or will not bathe. Some method of purifying the body must be adopted—let conditions, circumstances, tastes determine what; only, *be clean.*

PART IV.

CHAPTER V.

Clothing and Dress.

CLOTHING is one of the essentials of civilized life which primitive man in a natural state, where the climate did not demand it, probably dispensed with. Custom has rendered an outward covering of the body so indispensable that it is almost impossible to say now whether the demand is most inspired by natural necessity or by a deep-seated sentiment. However, fashion is an inexorable law so far as clothing is concerned, and our great consideration should be how far we can make it answer its purpose and still not obstruct the millions of tiny doorways in the skin. Light and air should have free access, and the best means possible for carrying the effete matter from the myriads of pores should be allowed. For if there is a stoppage of these outlets and the exudations are turned back into the body, the result is likely to prove fatal.

The Choice of Materials.

The first essential, then, to be considered in clothing is the material—something that is light and porous, yet sufficiently warm for all requirements. Nothing so well fulfills every purpose as wool, woven lightly and finely, as long as it is not fulled and shrunk from improper washing. Cotton and linen retain the exhalations from the skin—the odor from an un-

dergarment of too close a texture, after two days' wear, proves this—and there ought to be a free circulation of air next to the skin at all times.

Long ago people had but little choice as to what they should wear. Barbarians wore what they could obtain, according to the climate of their country. The skins of animals, as a matter of course, first suggested themselves as a covering to man, because they filled the requirements so well in their native condition. When they began to be tanned and prepared as a protection against cold, man had made a great stride toward civilization. The art of uniting two pieces of skin by weaving strings of hide through both edges was another great advance. A history of the evolution of clothes from a wolf-skin to an up-to-date evening suit would be interesting, but it cannot be entered upon here.

Until within the last fifty years there was little variation or choice in the matter of clothing. Fixed customs determined the material, the cut, the color and form for each class in society. Sometimes legal enactments were passed, which implied penalties for infringements, compelling each class to wear the kind of clothing set apart for them and no other. Usually, however, custom, the weight of public opinion, or the impossibility of obtaining clothing other than that one was entitled to, were sufficient to keep the inferior classes to their uniform. Among the ruling and richer classes that strange, fickle but effective power, fashion, kept them close to a certain standard. Habit, an established custom, is a wonderful force. It has served in its time to put one kind of a suit on the heavy and light, the homely and the pretty, and keep it there hundreds of years. People have worn for ages some useless, fantastic article of dress, because at some

period or other our ancestors found it temporarily necessary to adopt it.

Rational Methods in Dress.

But the growth of individualism, of a freedom of choice wherever such freedom interfered with no other person's rights, which has marked the last two decades, has changed all this. People reason out things more, instead of depending so much on what is customary. They have learned to carry out their own inclinations, knowing that they must themselves bear the consequences, and this develops the judgment. Nothing is forbidden in wearing apparel—and people desire a great variety in style of dress. Even Fashion must nowadays present multitudinous styles and varieties, or she will not be followed. As a natural result of this liberty of choice, a more rational method of dress is coming into vogue. Textures made from the warm hair or wool growing upon sheep and goats are more generally chosen than the vegetable fibers. Loose clothing for work or exercise is more often chosen; and even the long drapery which women have worn since the beginning of civilization is shortened for special occasions and special uses. Often that which special pleading and solid argument fail to accomplish some unlooked-for invention will usher in without heralding or noise. As, for instance, in the case of the bicycle suit. A lady may always walk out in short skirts, if she chooses, since the bicycle is so prevalent; and very few women care to walk far, or to walk at all on a rainy day, in the long, trailing skirts so inevitable with the generation just passed.

The outer garments may be chosen by the wearer according to taste, providing they are not too thick and heavy. But nearly all physicians agree that soft, loosely woven woolen fabrics are best for wear next to the skin. Still, there is

a difference of opinion even among recognized authorities. A prominent Western physician recommends linen, summer and winter, with frequent changes. For additional warmth, he recommends more clothing when necessary, but advocates lighter apparel than is generally worn. Some people protest that they cannot wear flannel next the skin, and advocate silk only.

The Value of Fresh Air.

If we should accustom ourselves to more fresh air, lighter and more porous clothing, cooler and better ventilated rooms, we would be more vigorous, have rosier cheeks, brighter eyes, and better tempers. The English do not keep themselves heated up as we do. They do not close all the windows and means of ventilation and build a fire as soon as the air lowers a little in temperature. They are more likely to get up and exercise until the blood is coursing merrily through the veins and a warm glow pervades the system. When fires must be lighted, they are built usually in an open fire-place; all noxious gases are drawn up through the flume, and no means of ventilation is better calculated for the purpose than the open chimney. Hot rooms, an overabundance of clothing, close air, are blamable for most of the throat and lung diseases so prevalent.

One reason why consumptives recover upon going to the mountains in Colorado, or to the warmer climate of some of the Southern States, is that the mild, pure air entices people to remain out of doors. In the mountains one *must* breathe deeply and fully, or he finds himself gasping for air. The lungs need to be filled—filled full—and the sweet air, full of ozone and odorous with spruce and pine fragrance, quickly heals the tender organs. Those who go to the cities and shut themselves up in small bed-rooms, light fires and pile on bed-

clothes, are not apt to recover; they go home discouraged and report that change of climate is useless for consumptives. But those who go up into the mountains, dressed sufficiently warm without being overburdened with clothing, who sleep in tents or hammocks, who tramp about or work among the evergreens all day long, live to tell of their wonderful recovery to a green old age. One must be careful, however, not to doff warm underclothing because the sun beams down hotly in the middle of the day. A passing cloud cools the atmosphere; a gentle breeze drives away the heat, and the evenings are always cool.

Let Reason Govern Fashion.

One should not be guided merely by what is expensive or stylish in dress, underwear especially. After observation, experience and study, let the reason decide, not the pronunciamento of fashion. Men are more apt to dress comfortably and healthfully than women, when comfort interferes with custom or fashion. One thing women will not sacrifice to reform in dress, and that is grace, and it need not be expected of them. The reason dress reformers have had so hard a struggle against custom is that beauty and artistic grace have been ignored in reform dresses offered for acceptance. Women will not make themselves ugly even for the sake of health, and it is fortunate they will not. That subject of ceaseless discussion, the corset, may possibly be abolished when something as graceful takes its place. For all forms are not symmetrical, while many have a tendency to sprawl and spread in decidedly inartistic proportions. No doubt, if every woman breathed correctly, exercised properly, bathed sufficiently, ate carefully and trained down to the outlines of an athlete, she might be so well proportioned that no restraining

garment would be necessary. But they do not, and no dress has been invented that does not require, by the laws of beauty, some supporting waist beneath it. Dress waists cut to fit the form closely look badly, strained and pulled together, while every wrinkle in the flesh shows its outlines; and a basque and skirt without a corset or boned waist look hideous. The "Empire" and Greek dress resemble morning wrappers too closely to be appropriate for evening wear, and the loose drapery is inconvenient for vigorous exercise or manual labor. When some one invents a really neat, graceful dress that is convenient and is not easily pulled out of shape, which can be worn without stays, probably the corset will be banished from the wardrobe. But at present woman cannot be persuaded to give it up entirely. All has been said upon the subject that can be, and until something equal to the corset in defining the graceful outline of the feminine form is invented, it is useless to inveigh against it. The most that can be done is to persuade women, for health's sake, to have corsets made to order so as to fit the form perfectly, and not to lace them tightly. Women, since athletic development has been so much sought after, do not strive to attain wasp-like waists, as they did two generations ago. Except in a few instances where shallow girls have failed to catch the spirit of the times, we see only the graceful curve from bust to waist which the Greeks so much admired. A sharper slope is now generally deemed ugly.

Underclothing, Footwear, Etc.

Women as well as men who are kept indoors by their occupations or by ill health are advised to wear one weight of underwear all the year round, and to don extra garments when going out in the cold. A healthy person may trust to

his own sense of personal comfort to dress as lightly as is practicable in warm weather, and wear just enough to keep comfortable when cold settles down. The fixed habit which some methodical people have of changing from winter underclothing to summer at a precise date, and never to go back to that discarded until the proper date comes around again, is by no means a wise one. A man will swelter in heavy flannels all day on the 31st of May, and conscientiously don light cotton undergarments on the 1st of June with a chilly rain falling, because from time immemorial he and his family had discarded winter suits for summer attire exactly on the 1st of June. This is carrying method to madness.

Rubbers and waterproof garments should never be worn a moment longer than is necessary. Anything which obstructs the pores of the skin or prevents the free circulation of air about the body is highly injurious and may be fatal. An air-proof covering of the whole skin would prove fatal in a few hours.

Dressing the feet properly is one of the most important factors in clothing the body, and one of the most difficult. To cover them so as to sufficiently protect them, and at the same time afford ventilation and secure ease, is something of a problem. The ancients perhaps came the nearest to solving it when they fastened sandals to the feet with ribbons, leaving them uncramped and unconfined and still sufficiently protected. The feet, encased in closely woven stockings and snug-fitting, high-buttoned, shining black shoes with narrow soles and high heels, are objects of pity. Who has not experienced or heard the sigh of relief from others when, after a day's outing, one doffs the uncomfortable affairs and assumes the loosely woven stockings and broad, shapeless slippers of home life? The Indians wore moccasins made from

the skins of animals and never suffered from corns, bunions or "tender" feet. Perhaps the nearest we can approach to comfort and security is to wear shoes that do not pinch the feet, made of the softest leather obtainable, cut low, with low heels, over thin, porous stockings. It benefits the feet to bare them and walk in the grass or on the soft soil, when the sun shines, for a time. We need to come in direct contact with mother earth occasionally and receive her magnetic currents without intervening barriers. It is noticeable that men who dig ditches or work in the soil in any capacity, providing overwork or other conditions do not break them down, are healthy and robust. Something is received from the soil that our systems need. Children who are allowed to "play in the dirt" are always better-natured than those who are kept clean and spotless and forbidden to "get their clothes soiled." Nature is kinder to her children than are we, with all our wisdom.

Proper Clothing for Children.

The clothing of children is a very important matter. But the tendency of the times is toward more sensible methods in dressing, and it is not necessary to enter into a lengthy dissertation on the subject. Mothers do not swaddle infants in so many tight bandages and long, heavy skirts as formerly, and the long dresses are exchanged for shorter garments earlier in their lives. They are in danger perhaps of going from one extreme to the other. Whereas in the old days babes and young children were allowed to shiver in low-necked, short-sleeved dresses, and short stockings and skirts which left the knees bare, they now are disposed to bundle them up too warmly. It is well to dress children warmly and turn them out of doors to drink in the pure air and exercise their limbs freely, but we should not overburden them with

clothing. They perspire while playing, then sit down where it is cool, and so "take cold." If dressed too warmly in the house and when asleep, they are not only uncomfortable and peevish, but become susceptible to every draft of wind or sudden lowering of the temperature. Do not be afraid of a little watchfulness and trouble in dressing children. Dress them as the weather and the conditions seem to demand, even if changes are required frequently.

PART IV.

CHAPTER VI.

Mental and Physical Culture.

A HEALTHY brain and healthy body must *act*. They will deteriorate faster from disuse than from overexertion, and decay and death will soon result from complete inactivity. One of the causes of insanity is monotony, a sameness of interests from one day to another, so that the mind perceives only one set of sensations, and has nothing new to compare them with, or arouse to action other faculties of the brain. The arm of an eastern fanatic, held motionless in one position for years, becomes absolutely useless. It withers away and loses its original power of exertion entirely. Every living thing must move or die. And man, more than any other creature, needs daily, varied, pleasurable exercise of all his powers, if he would develop fully, normally and harmoniously.

All-Around Development.

The faculties that will be exercised most, the development that one will receive, must, under present social and industrial arrangements, depend a great deal upon the occupation one follows. Were there *time* enough in every twenty-four hours for the varied exercises essential to an all-around, well-balanced development, this need not be true. But when one is compelled to spend ten or twelve hours of each day in using one set of muscles or one group of the mental faculties, there

is little inclination or time for sufficient exercise of other faculties. Overwork is bad in every way. In fact, it is the only element that makes labor distasteful and humiliating. The ordinary labor that each one should perform in order to "do as much work as he makes" would not be hard or hateful. It is *excessiveness* that makes labor drudgery. The wearisome round of motions that must be repeated over and over until the whole organism revolts and an unnatural exhaustion sets in—unnatural, for weariness would not be felt so soon if exertion could be varied and interesting—prevents a desire or even the ability to undertake new exercises for the few remaining hours which the daily toil and the necessity of sleep leave of the twenty-four. The humiliation in this sort of drudgery comes from the fact that no one will pursue it who is not forced by circumstances to do so. Being compelled implies an inability to succeed in other avocations, a lack of intelligence or enterprise. But this does not always follow, because there are only a certain number of "easy" positions to be filled, and some one must be left out. And it may be a matter of conscience that even very able men *choose* not to struggle for positions in which a genuine equivalent is not rendered to society for the benefits received from them. Be that as it may, a majority of the people must work at their avocations ten and twelve hours a day, sometimes longer; and whether it is the middle-class business man, puzzling over his business accounts until far into the night, the typewriter operator pounding the keys till his brain whirls, or the mechanic watching the turning of wheels through the daylight hours, the fact is that he is spending too much time and energy in one kind of exertion for good health and the preservation of life. For the wage-earner, who must employ his days at one occupation, but little can be said on the necessity of variety in exer-

cise, except that the necessity should so impress him that he will direct his mental powers toward bringing about a more just condition of industrial affairs. He will find himself in harmony with a vast number of thinkers and reformers, whose combined thought forces will in good time achieve all that is desired.

But even under present conditions the daily toiler may do much toward preserving an equilibrium within him. Even when night finds him too weary to feel the inclination for any new exertion, he will, if he makes the effort, be amply rewarded. Let the occupation of the evening be something entirely different from that which he pursues usually. If he stands still and attends a machine all day, a car-ride with good company, a bicycle ride, or even a walk in agreeable society, will refresh and renew his powers. The man who uses his muscles needs rest for the body; but he may read or be read to, listen to concerts or lectures, play games, or indulge in social chat, which ought to be merry and bright. The clerk or stenographer should enter into outdoor amusements, athletic games, etc., with the inspiration of a few congenial friends around him. One will live longer who keeps all his faculties and energies active, than one who overtaxes one set of faculties and allows the others to lie dormant.

The person who is in business for himself is perhaps more apt to give overmuch attention to his work than the employed; but he is not so bound by circumstances, and if he will not pay due regard to the demands of his being, he is himself to blame. The satisfaction of living a well-balanced, healthful, cheerful life, *with power in it,* ought to more than compensate for any loss a reasonable attention to his own various requirements might entail.

The sportsman or athlete who overexerts himself for glory

is blameworthy. Needless excess in any kind of exercise is but a slow form of suicide—worse than that, it may bring on a helplessness and state of suffering that entails burdens on other people. One would not care to wreck his health beyond restoration, or to bring on an injury that would cripple for life, by overstraining his powers, if he realized what he was doing. But in the anxiety of the moment to surpass all competitors this is often done.

What Constitutes Perfect Health.

Perfect health is the perfect adjustment of the complex parts of the system. Too much muscle, with too little of the nervous and mental forces, is undesirable. It engenders brutality and shuts out from the individual the great round of social and intellectual enjoyments. Too much nerve power for the physique results in oversensitiveness, overkeen susceptibilities, a condition anything but enviable. We should seek for a true balance; something which calls into play in a temperate way every fiber, every nerve, every muscle of our bodies.

Men cannot continue long on one level, either in physical exertion or in mental or emotional conditions. One cannot think long upon one subject. Too much indulgence in grief, anger, jealousy, melancholy, or too great a dwelling on one topic, leads to insanity. Too prolonged and steady exertion of the muscles tends to harden them, though they are in reality losing the vital strength that otherwise would keep them supple and capable for many years. Hard and continuous manual labor, with little use of the mental and social faculties, makes one hard, coarse, soddenish. The *man* within, the *life* that should shine out to meet and blend with the rays of other men's alert lives, becomes almost extinguished. Every one

should do no more than will allow him to retain his interest in other matters, to keep a keen relish for contrasting occupations, to preserve the ability to sleep well and eat with a natural appetite. Life is full of grand possibilities to those who value it aright, and consequently conserve its forces with wisdom and determination.

The Healthful Value of Various Kinds of Exercise.

Some one has said that man ought to be able to do all that the animals do, and more. He should be able to walk, climb, jump, swim and fly, as well as the birds and beasts, and to invent a hundred new activities suitable to himself. Walking he can do without trouble, but he greatly undervalues the accomplishment. Because it is so matter-of-fact, he does not realize that it is the most natural exercise in the world, and the one which best assists in building up the forces of his body. Every muscle is called into play, the breathing is stimulated, the lungs filled out and invigorated, the action of the heart is increased by a brisk walk. When no other exercise is attainable, walks taken with discretion will keep the body in good health and tone. But walking can be abused as can every other blessing. Excessive walking is a drain on the vitality, and nothing can ever restore the capital of strength once entrenched upon to any great degree. Be moderate in this as in all things.

Walking without any interest or object is not as beneficial as though some attraction urged one on. To mope along, listless and languid, with the shoulders drooping and the chest drawn in, wishing at each step that the journey were done, is not the way to gain health and strength. It is better to have a definite errand; to walk briskly, to breathe deeply, to think pleasantly, and to feel enjoyment in the exercise.

Procure congenial company if you cannot attune your own thoughts to an entertaining pitch. But that is easier than one thinks. Fall into a line of thought which holds some peculiar interest for you. Concoct a story or a poem; build air-castles and day-dreams—their falling will not hurt you if you are generally well-balanced. Think of every bright and pleasant thing you desire—from out the universe some time your thoughts will materialize. Don't brood over possible or impossible troubles while walking—leave that, if it must be done, for working hours. Whatever expensive means of exercise you may possess, despise not the simple, primitive, original and economical one of walking.

Rowing is good for the muscles of the arms, shoulders and chest, but is no help to the lower limbs. One may easily overdo one's strength on the water, and should cease before a feeling of exhaustion comes. Wheeling is an excellent exercise if not carried to excess; better perhaps than any other mode of locomotion, as it keeps the mind active and the spirits exhilarated. Every part of the body is exercised, and there is little danger of tediousness. The professional cyclist, like the professional athlete, is not so apt to find pleasure, prolongation of life, beauty or grace in his calling. The humped-up wheelman fairly lying on his handle bars, with his "bicycle face"—a combination of distress and determination—is not a beautiful object. But one *can* be graceful and comfortable riding a wheel: sit up straight, ride at a convenient speed, breathe regularly with the mouth closed, and stop when you are tired.

Horseback riding is an excellent exercise for hardy constitutions. Delicate persons should begin riding with extreme care. Short rides on an easy-going pony might prove beneficial to some, but unless one has been reared with horses and

learned to know them as he knows himself, to become familiar with their motions as he grows familiar with his own power, there is danger and doubtful recompense in the jolting, violent exercise obtained in ordinary horseback riding. The sweeping, graceful movements of the Indian and the cowboy as they dash away over the plains in unbounded freedom keep them in good health and vigor. But it is a different affair when the unaccustomed essay it.

Swimming is an accomplishment every one should acquire, for not only is it good exercise, if judiciously practiced, but it is often the means of saving life. Women make as good swimmers as men, and often they are most in need of its tonic effects.

No doubt, if we had discovered the secret of flying, we should all choose that as our favorite exercise. Nothing could exceed its exhilarating influences; we would "pump up our wings," or whatever answers that service, and spring up into the delicious, limitless ocean of air for a "constitutional." But we must wait a few more years to be able to enjoy the eagerly anticipated aerial flight.

Variety the Spice of Life.

The more tiresome and monotonous one's occupation is, the more need for diversions and amusements of an elevating kind. Music, pictures, readings, recitations, whatever contrasts most vividly with the daily work, should be enjoyed. The desire for the recreations is generally quite keen in men and women who work at uninteresting tasks throughout the day. It is the reason men resort to the saloon and concert hall, where their money is worse than squandered. They are too weary to study, too dulled in mind to invent recreations. The saloon, with its bright lights, genial society, music and

general air of comfort, is at hand, and these attractions prevail; it is so convenient, so well prepared, time passes so quickly, and until the visitor really drinks too much, he *is* benefited and refreshed.

But these pleasures can be obtained in a more sensible manner. There are many workers, and they all feel the same need of rest, amusement and gentle stimulus to a brighter life. Let them meet in one another's houses, or club together and engage a hall. Singing is one of the brightest and best means of social and restful enjoyment. A singing class or choir provides one of the most agreeable recreations; it will restore vitality and good spirits more effectively than any other means of pleasure. Singing clears the dust and bad matter from the lungs, the cobwebs and gloom from the weary brain, the weight of care from the heart. Sing whenever the singing impulse comes, and cultivate the inclination if it is not spontaneous.

If each member of a club will contribute to the enjoyment of the others by singing, reading, reciting, playing some instrument, or telling a story, he will not only give pleasure to the others, but cultivate his own powers and develop his resources. The whole company will part with a brighter glow of content and enthusiasm if the amusement of the evening is contributed by members and friends, than if hired professionals have amused them. And the social and fraternal feeling among them is much more enhanced.

Three hours of continuous brain-work, we are told by good physiologists, consumes the vital power as much as eight hours of physical labor. If a person compelled to endure prolonged mental strain daily is not careful, he will soon sink into a mere mental drudge. He must not forget that he has a body, powers of locomotion and a whole world full of good

fresh air, and that upon the vigor of his physical organism depends the strength of his mind. Walking, riding, driving, wheeling, are easily accessible, and he must not let a temporary brain-exhaustion prevent essential exercise. Often the languor occasioned by severe mental work hinders the effort towards bodily exertion; this must be overcome by the action of the will; once in motion, the brooding laziness disappears.

A Word to Home-Makers.

The work of the home-maker can be made one of the most healthful and inspiring of occupations, though not many can be brought to think so. Every form of exercise that the properties of a well-furnished gymnasium can afford is furnished by the varieties of motions necessary in the care of a home. The numerous duties, each of a different motion, prevent the work from becoming irksome; and the exertion required does not prevent one from singing, talking and laughing, from pausing a moment to admire a lovely scene from the window, or from stepping out of the door for a breath of fragrant air blowing in from orchards or flower-gardens. When house-work is too heavy, too complicated, and takes too much time and strength, like every other kind of work, it loses its enjoyable features. When arranged so that several hours of the day may be devoted to other pursuits, housekeeping is healthful, invigorating, refining work, and not to be despised by the most cultured.

Children seldom need to be urged to activity. If they do one may be certain something is wrong, and the case should be kindly investigated. Young people keenly enjoy exercise of a uniform nature. Simple calisthenics, performed in time to music, will put their faces in a glow, brighten their eyes and set their young blood bounding to the finger-tips. A lit-

tle military march with a few harmonious movements will please them greatly, and this is a great consideration in taking exercise. Never tire them with arbitrary figures, however, for their own natural, spontaneous play usually affords them sufficient exercise.

PART IV.

CHAPTER VII.

What to Do in Sickness.

THE best time to do anything for sickness is before it makes its appearance. Prevention is more efficacious than cure, and the right way to live is the right way to banish sickness. Illness is always the result of defying natural laws either on the part of the sufferer directly or his ancestors in times past. This defiance may have been unavoidable, but that makes no difference—the penalty must be borne. Society, of which we are a part, often does not allow us to live as we should; but as a whole it pays the penalty of broken laws as inevitably as in the case of individuals.

The Laws of Health.

It is generally true that in the sphere of the very wealthy as well as in the depths of extreme poverty the requirements of good health are not carefully observed. But those who can command the comforts and luxuries of the world *might* observe them, and are criminally negligent when they do not. Their *ignorance* even is inexcusable, since they possess leisure and opportunities for education. It is sometimes said that wealth cannot buy good health. It can, and it is possible to do more—it can keep it when once gained. Nothing can be really accomplished towards restoring health when once shattered, unless the conditions favorable to recovery can be se-

cured. And only the residents of the plains and forests, where numbers do not hamper, and Nature is not interfered with, can do this, or the rich who bring the elements of civilization into relations favorable to good health by the use of money.

Those who possess means may live leisurely and calmly. Their bodies are well nourished; their minds and social faculties may be fully satisfied; fresh air, plenty of room, bathing conveniences and suitable dress are attainable; freedom from anxiety in regard to dire want is theirs. If they allow late hours, overeating and overdrinking, overindulgence of any of the appetites, to break down constitutions built up by good conditions, they do so willfully and ought to bear the consequences unpitied.

But the very poor and those who are obliged to work long hours at deleterious trades and occupations have little choice. They may be breaking the laws of health knowingly every day of their lives, but there is only the alternative of idleness and starvation, which they dare not accept.

They must live in crowded places, and they cannot escape the bad odors and bad accumulations consequent on too many people in too little space. They have few and crude bathing conveniences; and worst of all, they work too hard—exhaust their strength each day faster than it can be recuperated, and their nourishment is insufficient. They may secure enough such as it is, but they cannot obtain the variety and quality of good, life-sustaining food necessary to full strength and robust health. It is wrong that any class of people at this enlightened stage of civilization should be compelled to live under such conditions. The old idea that a slave class is necessary to the preserving of literature, art and science has been exploded years ago. All might work a little, and all might cultivate their mental, moral and social natures and the arts

and sciences suffer not at all. We may see no direct remedy for such a state of affairs as exists, but if every one would realize that the conditions are wrong and ought to be changed it would be a great step towards a peaceful revolution. For what the people believe in and desire, that will they have in due course of time.

But whatever be the cause, sickness still visits us and will for years to come. If people in all conditions of life will not make the most of their opportunities, whatever they may be, and will not keep to the full extent of their possibilities the rules for preserving health and strength, they commit deliberate suicide, slow and lingering though it may be.

Sometimes there is a nobility in defying natural laws for the sake of some great duty to others; but usually justice to one's self is more commendable than self-sacrifice. Often weakness and liability to disease are born with people, and they must suffer for the sins of their fathers. Whatever the cause, we have sickness to deal with all too often.

How to Prevent Sickness.

If we can quickly avert a threatened ailment, it is not difficult to keep in the way of health; only, if in our ignorance we try wrong remedies and blunder into hurtful instead of beneficent treatment, we start on a long, perplexing, wandering road that may never lead back to good health. Warning is given quickly enough, and if the cause of ill-health be removed immediately, all soon goes well again. But if, overexhausted, overworked, worn with anxiety, we will not or can not stop to repair and gather up our forces, a wreckage is sure to follow. There are very few cases of threatened illness which cannot be checked or averted by ordinary and very simple means. If one is over-worked, feels exhausted,

"achey" and heavy, repose, warm baths and warm water injections and due management of nourishment will set one's feet back on the right road, much better than the swallowing of poisonous drugs. If a cold has set in, hot baths, warm drinks, a good, warm bed, and *repose*, are more necessary than quinine. Even rheumatism and neuralgic pains may be better treated by hot applications and repose than with poisons, more or less intense, taken into the system.

Kind, Quantity and Quality of Food.

The regulation of food during disarrangements of the body depends not only on the nature of the derangement, but also on the habits of the patient and the kind of food used in ordinary life. Abstinence from food is usually advised in fevers, excitement, mental disturbance, etc. Yet, if the body has been undernourished for a long period, nourishment must not be withheld; liquid foods, broths, oysters, the beaten yolks of eggs, should be administered in small quantities, hourly, until a restoration of energy is assured.

In cases where the sick one has lived heartily a brief period of fasting is essential. All the organs of the body are closely related, and if one is out of repair the others are in no condition to do the ordinary work of health and activity. It is a mistake to prepare a hearty, tempting meal for one who is exhausted or exceedingly weary. The digestive organs are driven to do more work than they are capable of performing well, and very often serious results ensue. Even in cases where one must continue to work though oppressed by pain and fatigue, it is not best to eat substantially; light, digestible food, taken in small quantities, at short intervals, is more sustaining and less liable to overburden the digestive organs.

Any kind of food offered to invalids should be invitingly

arranged. The taste of the invalid should be ascertained if possible, because it is useless to offer food that does not appeal to the patient's fancy, no matter how much others may like and recommend it. A dish may be presented in such a manner that the faint appetite will disappear altogether, even when nourishment is very necessary. A delicacy that will tempt one person will prove repugnant to others. A crust of brown bread may be eaten with a relish by one invalid, while others could not look at it. There are plenty of nutritious and easily digested foods to choose from, and no one thing should be forced upon the patient, when he does not like it, merely because some one else has been benefited by it.

In treating the sick, the previous conditions and habits of life should be taken into consideration. One cannot diverge in sickness far from the course which kept the patient in good health before the break-down. The quality of food, the intervals in eating, as well as the quality of the bed, the degree of warmth to be maintained, and the amount of fresh air to be admitted, all these should be regulated by the former customs of life. A person accustomed to coarse fare could not thrive on the highly concentrated delicacies a luxurious person might crave; and the couch of a daintily reared individual might seem too soft and enfeebling to one accustomed to the hard pallet of the laborer, the soldier or the sailor. On the other hand, though simple food is best in illness, beds should not be too soft and warm, and fresh air is always essential; still, one accustomed to luxuries might refuse food if poor or illy-prepared, a hard bed might come to be painful, and too direct draughts of out-door air might prove injurious. Everything pertaining to a sick-room should be judiciously managed by an intelligent and qualified person.

Many of the most common ailments are brought on by

faults in eating. Sometimes the body is weakened by a long course of underfeeding—a lack of sufficient or of nourishing food—and is an easy prey to disease germs. Others bring on derangements by overeating or indulgence in rich and highly spiced food. More do so from eating too fast, in a preoccupied, hurried manner, bolting food in great mouthfuls and insufficiently chewing it. To eat when agitated, excited or worried is an easy way to court illness; digestion ceases when one is distressed in mind, or when violent emotion has full sway, the food ferments, and often severe pain or nausea follows. A hot-water bag on the stomach and plentiful swallows of hot water will usually bring about a cure, if given before a physician arrives with morphine and other drugs. Avoid eating when very tired or cold. Rest and warm before essaying to eat, even if exceedingly hungry. When greatly in need of food, eat very carefully and slowly, taking small mouthfuls and masticating deliberately.

So-Called "Colds."

The most common afflictions to which ordinary mortals are subject are colds. But the liability to take cold shows in itself that the body is in a more or less unhealthy condition. A normal person may suffer from an unusual or prolonged exposure to cold, but if he is well nourished, appropriately clothed, strong and vigorous, he will not readily succumb to the ordinary conditions supposed to bring on inevitable colds. There are many simple remedies for a cold which can be used with salutary effects, but almost all of them leave the body more tender than ever to the effects of draughts, sudden changes of temperature, etc. Still they must be adopted for the sake of immediate relief often, and the building up of the system must be attended to afterwards.

Sometimes a sudden cold is contracted soon after eating. The meal or the manner of eating it may have been at fault, but the cold affects the stomach in the way that excitement, fright or deep agitation does. One may not be conscious of a chill, but he feels a severe pain in the stomach. Warm baths are not advisable until the stomach is through with its difficult task, but hot-water drinks will be relieving. A mild cathartic will aid in carrying away objectionable matter, and hasten recovery. One must eat lightly for a few days after such an attack.

For colds unrelated to the digestive functions, several kinds of warm baths are recommended. An eminent physician, upon becoming conscious of the symptoms of a cold, always has a hot bath prepared in the evening. He remains in this for twenty minutes, adding hot water as it is needed. He then leaves the bath without drying, wraps a flannel blanket about him and retires to a bed well supplied with covering. By morning all symptoms of a cold have disappeared.

A hot bath in an ordinary tub may be taken before going to bed, with equally good results. Let the patient sit in a tub half filled with hot water, with his feet in a pail of hot water, and a thick blanket covering tub, pail and body up to the neck. Fifteen or twenty minutes will usually produce copious perspiration; the bather should be quickly rubbed off with a little clear, warm water and thoroughly dried. The room should be warm and free from draughts. The patient should retire to bed immediately. A hot lemonade or a hot flaxseed tea may be given before he goes to sleep.

A French physician claims a discovery in the application of German cologne in cases of cold in the throat and head passages. He advises one thus attacked to drop cologne on a folded handkerchief and breathe the perfume energetically

through the mouth and nostrils for about three minutes. For young children he sprays cologne diluted with water into the throat and nostrils, as being less severe. He is said to have used this in his private practice and in hospitals with marked success.

Cuts, Wounds and Bruises.

For cuts, wounds and bruises nothing is so efficacious as hot-water applications. In Moscow, Russia, in the hospitals, steam is used. "A temperature of one hundred degrees produced by the direct application of this moist heat would quell even the excessive hemorrhage without resort to ligatures." Surgical wounds are healed by the use of steam without suppuration or appreciable loss of blood.

In common households the application of steam would be difficult because of inexperience. But this example proves how useful is moist heat even in dangerous cases. Hot water is almost always obtainable and affords ready relief in cases of acute pain or severe injuries. When possible, as in the instance of a hurt or painful arm, foot or leg, place the member over a tub or large pan and pour water as hot as can be borne over it for half an hour or more. The pain will eventually subside, and the injured part be bandaged.

Wet sheet packs are extensively used in the fever wards of many hospitals. The patients are greatly soothed and cooled by this treatment and look forward to it with anticipation. If one packing does not satisfy they are put into another, and while fever is raging there can be no danger. The patient must not lie more than an hour in one packing, or his body will re-absorb the impurities thrown off. The odor coming from a removed sheet will prove the utility of the treatment.

Poultices and Hot Applications.

Poultices of various descriptions are almost necessities in cases of inflammation, threatened pneumonia and congestion of the lungs. A succession of warm flax-seed poultices will relieve a very severe attack; they should be larger than the part afflicted and be placed on the chest without allowing the cold air to strike it. The heat and oiliness of flax-seed are foes to inflammation. A poultice of raw onion, sliced thin and pounded until juicy, is an old remedy for a cold on the lungs, but always an excellent one. Onions absorb all impurities and will allay pain and draw out inflammation from any portion of the body. They should be changed often and the poultices burned or buried, as they are dangerously obnoxious after use. The one drawback in using poultices is that they are apt to be left on too long and all the benefit thus annulled, for they are poisonous after absorbing all the impurities they will hold.

But poultices and hot applications are but quick reliefs. Though imperative in emergencies, they leave the system more susceptible to cold than before. The only thorough remedy for a lingering cough or a tendency towards throat trouble is to invigorate and strengthen the whole being. The care usually exerted to avoid taking cold renders the body delicate, sensitive to slight change in temperature, and without strength to stand attacks of chilliness. The only permanent cure is to breathe as much pure, fresh outdoor air as possible; to bathe often—not necessarily in cold water, but in any way that is agreeable and at the same time *cleansing*—to eat wholesome, nourishing food, to keep the bowels open, to exercise as much as possible in the open air, and to be *happy*. A spell of despondency will lower the vital tone of the body to a

point where a cold is easily contracted. A robust, healthy condition will not allow the insidious approaches of a cold.

Plasters of mustard or cayenne pepper are sometimes necessary, but should be used with extreme care. The tender skin should first be rubbed with sweet oil or vaseline, and the plaster, covered with a large folded cloth, applied gently. The important thing to observe in poultices and plasters is not to leave them on the patient too long at a time, and not to allow him to be chilled in the least while wearing them and for some time afterward. Plasters are used when there is an inner pain which can be better dealt with if drawn to the surface.

Those knowing the importance of *keeping* good health will not neglect and tamper with the delicate machinery of their bodies, as they dare not tamper with a machine of their own skill and labor. It is much better to preserve health than to restore it when impaired. Complete restoration is never effected.

PART IV.

CHAPTER VIII.

What Not to Do in Sickness.

THE first "don't" might be "Don't be sick." But as we, the sole arbiters of our destinies, cannot entirely, as yet, control our conditions, even though we learn in a measure to control ourselves, we must submit to the ugly fact sometimes. But we need not harbor it, or succumb to it. We must, when it comes, meet it with courage, calmness.

The time has been—and there are still people who think thus—when sickness distinguished the patient and brought him into pleasant prominence. It proved delicacy and refinement to be ill, and sympathizers and advisors flocked around, delighted to give both pity and advice. But the sick-room has lost its interest to sensible people, and well it may. The sick are no better for a crowd of sympathizers, and as they are but paying the penalty of some of Nature's broken laws they have no reason to be proud of illness. Don't admit a throng into the sick-room and don't allow it to be noisy and confused—these are among the most important "don'ts."

The Deadly Danger of Drugs.

Don't fly immediately to strong drugs at the first appearance of an ailment. Nothing can be more pitiable than the condition of one who is a victim of continuous drugging. If he escapes the actual afflictions which often follow an injudicious and constant use of strong medicines, he is in a con-

dition something like that of the opium-eater—it requires stronger and stronger doses to affect him as time goes by. It is also much harder for him to recover from a little ailment by natural means, such as rest, bathing, diet and air.

The best physicians no longer resort to poisonous drugs for every disease. Every year they are depending more and more on hygienic treatment, on surgery, on anesthetics and antiseptics, to restore health, assuage pains, and prevent the spread of diseases. There is no danger in natural remedies and rational treatment, and when the patient is cured he is really *well*—there are no effects of drugs lingering in bone, tissue and muscle.

There are cases, no doubt, of severe acute attacks, when there is no time for Nature to work, and something powerful and quick in its action must be adopted to save life. But this must be ordered by a wise, experienced head only, and will be, after all, but a choice of two evils. A good physician knows that an injury has been done to the system; but when he has no alternative between that and depriving the victim of any system at all, he does not hesitate.

Though we may find a long indictment against strong medicines, it would not be wise to abolish or put them entirely beyond our reach. We need them as antidotes to those poisons which may have been inadvertently swallowed, touched or breathed. A counterpoison is a different matter from a drug given to cure a slight ailment; it is counteracted by the poison already present. The system may be somewhat the worse for being the scene of a battle, but the poisons destroy each other. Occasionally medicines may be used to advantage after an accident, or when there are hurtful elements which must be quickly eliminated. But no one should hasten to resort to

them when a simple yielding to Nature's requirements will allow her to effect a cure.

Usually, rest, quiet, a few days of light eating, bathing, will bring about a recovery in case of indisposition. Sickness brought on by exhaustion, by overwork, overeating or undereating, by exposure to inclement weather, by breathing bad air, or feeding on unhealthful food, can readily be managed by these natural methods. Cool baths allay fevers; hot water will banish or at least soothe pain, and aid in warming a chilled body. Dieting depends upon the nature of the sickness; where there is no appetite, it is safe to decide that the stomach does not require food for the time being. But if sickness is the result of insufficient or illy-chosen food, and one feels a craving for nourishment, it is foolish to deny one's self. Nourishing broths, tender meats, dainty preparations of eggs and milk may aid the patient in regaining his normal strength. Complete repose, with the mind relieved of all anxiety, is one of the best and most complete of Nature's remedies. But it is one of the things men and women will deny themselves to the very last. They can not, *dare not* take time to rest or to be sick, and to banish anxiety when one is feeling that his business is imperatively demanding his attention is a gigantic task. This is why, when one feels a feverish attack coming on, he resorts to drugs, which stimulate or palliate or tide over a critical time, while he continues to keep about his work. He may seem to recover, but he is only "piling up wrath against a day of wrath." Some day he must pay the debt a hundredfold, and find that he is obliged to rest whether he "has time" or not. People think they cannot afford to let Nature repair a body out of order—because it takes too long. But a doctor, medicines and a shortening of life are, in the end, much more expensive.

The Danger of Impure Food and Drink.

We are usually consuming more or less deleterious substances in our food; the water we drink is not always pure, and it is not always possible to obtain clear, fresh air. When we know the exact nature of the poisons we have imbibed, medical knowledge may advise the particular antidote or medicine calculated to bring about a quick cure; such as quinine for malarial attacks, etc. But in this case, a change of atmosphere and drinking-water, a liberal use of warm water, inside and out, and a period of rest, would bring about a more perfect cure, and no bad effects would linger to afflict the sufferer indefinitely. No one should take quinine merely for weariness, a temporary lack of vitality, or for the exhilarating effects it has on the brain, unless he wishes deliberately to bring pain and debility upon himself.

Do not choose a dark, poorly ventilated room to lie in, if there are any possible means of obtaining a large, light, airy apartment. One must have fresh air; there should be an open chimney in the room or some means of obtaining a circulation of air without producing drafts directly over the patient. Once established in such a room, shut worry, anxiety, fear, despondency, outside. Both patient and nurse should cultivate a cheerful, brave manner of looking at the situation, never harboring for a moment fear that a fatality lurks in the future. Confidence and trust are as important as good care in a serious case of illness. The attendant should never betray a feeling of uneasiness by look or word, even if he cannot wholly control it.

Doleful visitors should be excluded. Perhaps there is a certain strange enjoyment, participated in by some people, in recounting terrible cases of sickness, awful accidents and harrowing deathbed scenes, but they should be peremptorily for-

bidden to enjoy themselves thus in a sick-room. Visitors are seldom beneficial in a sick-room. The patient is in no condition to participate in a social function, but he will make a tense effort if a friend "drops in," and finds himself nervous, feverish, wearied when he is gone. Solicitude and sympathy should satisfy themselves with inquiries at the door until the time of certain convalescence.

The Dangers of Stimulants and Narcotics.

Do not resort too often to alcoholic concoctions as remedies. Once in a hundred cases some form of alcohol may be the only remedy possible. It has been the means of saving life even; but it is a stimulant that carries a train of evils in its wake, and is frequently the direct cause of results worse than the original ailment. Alcohol urges the heart and nervous system to renewed efforts when they are at so low an ebb that life itself is in danger. But it adds no new strength, gives no nourishment, builds up nothing. It may seem to assist the assimilating functions, but it simply benumbs the pneumogastric nerves and renders it impossible for the stomach to report its condition to the brain. Any one can determine, by using a little reason, whether the habitual use of such a stimulant is of real benefit. Physicians only use it as a choice of two evils.

Alcohol stimulates the powers to such a degree that marvelous feats of endurance are often achieved, and wonderfully brilliant efforts of mentality are put forth; but these are made at the expense of one's reserve of vitality and power, and this can never be restored. It is so much easier to resort to a drink of something stimulating, when one feels one's powers sinking, than to take a rest, a bath, or a wholesome change of scene and air, that hundreds of people do so and

remain at work. But it is like entrenching on one's principal when one should live on what accrues from it; the end comes with startling suddenness when one is least looking for it.

Pure grape juice, and simple drinks in which the presence of alcohol can scarcely be detected, need not be classed with alcoholic beverages; they are to most people refreshing and beneficial.

Opium and morphine are not curative. They should be called into service only in most extreme and unusual cases. Either to introduce them directly into the stomach or by injection into the blood is a most dangerous proceeding, and nothing but an extreme situation can justify it. They do not remove or lessen pain; they simply deaden the nerves which seek to carry intelligence of a dangerous condition to the brain. Pain is Nature's signal of distress; it also announces that she is gathering up her forces to effect a cure. Whatever is done to allay pain should be along the line of Nature's work, not against it. The grievous suffering which follows the use of narcotics is as hard to endure as the original pain; whereas more simple remedies, though slower in taking effect, leave no bad effects, but rather assist the processes of renewing and restoring the afflicted parts of the body.

It is so much easier to swallow a dose of medicine than to place one's self in a condition where Nature, without the presence of poisons, may proceed in her slow, sure, methodical way to cure and renew. But if you value a long and comfortable life, resist the temptation. Take time to get well, and when the disease has left you everything wrong is gone. There are no lingering, incomprehensible effects tormenting you for years afterward. And when an ailment comes again it is more easily banished than before.

Those who do not swallow strong drugs when ill seldom sink so low as those who do. If they follow the natural course dictated by reason—rest when weary, breathe deeply of pure air, bathe in warm water if chilly, use hot-water applications if cold or in pain, cold water if heated, inject copious draughts of warm water into the alimentary canal, if necessary, the patient recovers without alarming symptoms, easily, steadily and thoroughly. And people say of such a one, "Oh, he is never very sick; just slight attacks, you know," and go on to recount with great satisfaction the terrible extremes to which *they* have been reduced, and the terrible remedies resorted to to "bring them through." As long as people boast of being sick and take delight in the extreme remedial treatments they undergo, they will be sick, as sick as they like, and in ordinary health never be entirely free from ailments of some kind. But that is a cowardly, burdensome sort of life to live. The desire to arouse sympathy or to possess an excuse for shirking one's share in the activities of the world is irksome to others. Who wants to ride in the ambulance wagon throughout the battle of life?

Is Medicine a Science?

There is really very little known about medicine. The most eminent physicians of the world have declared that medicine is not a science; some of them even say that in the present state of knowledge concerning drugs they would better be abandoned altogether than run the risk of tinkering with the body where ignorance prevails. Every dose is more or less of an experiment. For it is impossible to determine the exact condition of the patient or what elements predominate within the system. Conducting chemical experiments in a live laboratory out of sight is an extremely hazardous under-

taking. That people get well at all, after making themselves the receptacles of all sorts of mysterious compounds, is because Nature is true to her trust and does her best in spite of the obstacles thrown in her way. "Nature does much and imagination a great deal," a great physician once said.

There is a great deal of superstition still extant concerning medicines. Indeed, the healing art sprang from a belief in witchcraft. The "Medicine Man" of barbarous tribes was not far removed from the established physician less than a hundred years ago, judging by remedies still to be found in the old books on therapeutics, "eyes of snails, spiders' feet and toads' brains" being among the things enumerated as specially effective.

People are slow to outgrow an awesome reverence for the man of medicine. They look to "the doctor's coming" as to the coming of a magician who is to work marvelous changes in the sick body by means absolutely incomprehensible to common man. The more medicine bottles he leaves, the more complicated and inexplicable the formula for treatment he prescribes, the greater he is, and the more the imagination is called upon to work its share. It is the old story of washing in the river Jordan; natural remedies are too simple and the average patient questions, "Are not the rivers of Damascus better than all the waters of Israel? May I not wash in them and be clean?" And like him, "turned and went away in a rage."

Most physicians know that if they leave the patient without prescribing one or two noxious compounds he will feel slighted and neglected; and that even if he is fast recovering he is liable to send for another doctor, who *will* dose him to his heart's content. Therefore, though they may be wise enough to realize that no drugs are needed, they give sweet-

ened water and flour pills as harmless offerings to the god of superstition. The imagination is usually so powerful that the sick one will declare he feels better after taking each dose. Whatever appeals to the courage or determination to get well is certain to be beneficial.

PART IV.

CHAPTER IX.

Care of the Eyes and Ears.

OUR eyes and ears seem to bring us in closer communication with the outside world than all the other organs of our body. Intelligent beings live and develop within their darkened homes, having only the sense of touch to bring them into relationship with their environment. But it would seem that they must be eternally alone. Who can find their souls? How can we penetrate into the mystery of their inner natures, when we cannot look into their eyes or speak our thoughts into their ears? We get nearer nature, nearer humanity, when we listen to their voices, and allow ourselves to look through the "windows of the soul" on the beauties of life.

One school of physicians professes to have discovered that all the ailments of the body are due to some weakness or injury to the eyes—excepting those resulting from accident. This is too sweeping a statement to be accepted, but no doubt there is a close relationship between constitutional imperfections and certain defects of the eye, and that often the general health is improved by proper treatment of the eyes, while optical imperfections may be remedied by strengthening and building up the system. It is true that many derangements of the brain are directly traceable to defective or overstrained eyes. Nervous headaches that continually torture one have their origin in some faulty arrangement of our sight organs.

Very often a skillful optician, by treating the eyes and adjusting to them the proper glasses, banishes such headaches entirely; and threatened insanity has been averted by judicious treatment of the eyes in conjunction with hygienic care of the whole physique.

The Cause of Headaches.

Good oculists tell us that if the eyes were true and strong headaches which have their rise in gastric defections would not be so common; our heads would not be allowed to throb in sympathy with local pains which ought not to intrude on the domains of other organs. True eyes are those which are perfectly focused so that the vision is even. Poor eyes are too often inherited, and children are carelessly allowed to go through their school days, without being noticed, looking obliquely at their books trying to secure a perfect convergence of sight. The least inequality or disparity of sight between a child's eyes is sufficient to weary and worry the nerves, and create a great deal of suffering.

How We Abuse Our Eyes.

Young children are often ailing and peevish when no one can discover the cause; the doctor drugs them and they get worse. A thorough investigation would probably result in discovering some annoying defect of the eyes which entailed a perpetual, troublesome strain on the part of the child which he is unable to understand and explain. Good physicians say that every child's eyes should be tested as soon as it begins to learn to read from books. It may be suggested that our forefathers were not examined and fitted to glasses as soon as they were out of their mothers' arms. True, but there were not so many exactions made on the eyes in those days, and somehow our more rapid lives have sensitized our nerves, until

every small defect seriously and painfully wears upon them.

The increase in imperfect vision in the United States is startling, while in many countries of Europe the majority of workers, artists and students habitually wear glasses at their occupations. It has been proposed in Germany that a law be passed ordering that the eyesight of all pupils be tested twice a year by an officially appointed oculist, and provision made for the proper spectacles in each case. Something should be done to check this apparent degeneracy of one of our most valuable and cherished senses. To find the cause and eliminate it would be more effectual than fitting new spectacles twice a year, though this is imperative where the trouble already exists.

We use our eyes badly in many ways while they are good and serviceable; they seem to be so reliable, so trustworthy, so uncomplaining, that we are certain nothing can hurt them. We read on the moving cars, carriages, even when walking; and the eyes must constantly be readjusting themselves according to the rate of motion. We subject our eyes to brilliant lights varying in intensity and color, to many lights whose rays cross each other in different directions; and we demand exacting service from them when the light is poor. We imagine we can do this with impunity, because we do not feel any immediate pain or uneasiness. We may not suffer for years while we trifle with these organs whose delicate intricacy ought to awe us into treating them well, but the time suddenly comes when our faithful servants break down beyond our power to restore them. Carelessness must be punished as certainly as it exists.

Clothing that is ill fitting is occasionally the cause of troubles of the eye. Hats that fit upon the head too tightly are responsible in many instances for aching and strained eyes.

An eminent oculist declares that he cannot treat eyes successfully while the owner wears high-heeled shoes, claiming that there is a subtle sympathy between the feet and the head; the high heels throw the body into an unnatural position, strain the feet and injure certain susceptible muscles and nerves which connect the extremities. Shoes must not be too tight, and anything which clasps about the neck too snugly is highly injurious to the eyes. In fact, tightness in the garments at any point will affect the eyes badly.

People usually delay the time of wearing the spectacles required by the addition of years, fearing that growing old is made too apparent. This shows a lack of dignity and self-respect and does not accomplish the object. For a discerning person can tell by the appearance of the eyes that glasses are needed; and at all events, holding objects away from the eyes to secure a focus betrays the failure of age, and looks undignified and helpless. Often from heredity, ill-health, overuse or accident people early require glasses to assist their failing sight. It is foolish to delay because of appearances the procuring of glasses until the nerves of the eyes are strained. When it is found that a printed page must be held farther away or at one side, the eyes should be tested at once by an able oculist and the proper spectacles adopted. Sometimes failing sight is indicated by weariness when reading or doing fine work, rather than by an involuntary movement of whatever is in the hand away from the eyes.

A good wash for weak or fatigued eyes is made by mixing two per cent of boracic acid in ninety per cent of camphor water, and if not unpleasant to the eyes, add five drops of alcohol. Use a rubber-tipped glass dropper to place one drop of the wash in the eyes several times a day.

Every one should rest the eyes from two to five minutes

three or four times a day, if continuous effort is required of them. Remove the glasses, if any are worn, rest the head against some support and look quietly at nothing in a pleasant gloom, or close the eyes entirely, whichever seems most restful. Dark glasses protect eyes sensitive to glaring light and shifting rays. Do not wear glasses that have become loose and will not keep their place steadily.

Some drugs have a deleterious effect on the eyes. The excessive use of stimulants is certain to weaken the sight. Quinine will, if used continuously or in large quantities, injure the eyes. If one continues using it after the eyes become affected, they may be weakened beyond restoration.

The clearest and purest water should be used for washing the eyes every day; this is most important to the preservation of the sight, but often really clean water is impossible to obtain. If the water procurable is impure it should be boiled and strained; tainted water should not be allowed to penetrate beyond the eyelids. Where pure water is plentiful, it is a good plan, so it is said, to plunge the face into a basin full, and hold the eyes open for a few moments. People who have tried it declare that it strengthens the eyes wonderfully.

It is believed by many that living in cities is the cause of so much near-sightedness. The eyes are never trained to distances; the only objects which meet them are near, and lack of practice results in lack of power. Inhabitants of the plains and mountainous regions are not nearly so apt to be near-sighted as are those dwelling in larger cities or narrow dells where the outlook is limited.

Glasses divided in half, so that the upper parts are for distances and the lower for closer use, are said by the best oculists to be hurtful, the danger far exceeding the convenience.

The Organs of Hearing.

Every one should be particularly careful in regard to the ears, and cherish sacredly the sense of hearing, for of all the afflictions to which humans are subjected, deafness seems to be one which good physicians are least able to deal with. Hearing once lost or dulled is very seldom restored. Not that every sufferer from a malady of the ear should consider his case hopeless, but the fact that defective hearing is so difficult to cure should impress every one with the importance of caring for and protecting the ears properly. Shocks of any kind injure the auricular organs; we can not always avoid shocks ourselves, but we may be able frequently to avert them for others, if we realize the significance of violence against the tender ear drums.

Hearing is injured ofttimes by the entrance of very cold or unclean water into the ears. People bathe in the sea without protecting the ears from the rush of the water. An eminent aurist says that before entering the surf cotton should be pushed into the opening of the ear to shield the drum. Many cases of deafness or pain in the ear are caused by shocks of cold water, and are much more difficult to cure than when the trouble proceeds from other cause.

A blow upon the ear is exceedingly dangerous and painful. It is criminal to strike a child upon the side of the head, for ignorance of probable consequences is inexcusable in mature persons. One would not subject a delicate musical instrument to violent dashes of cold water, or blows and knocks. But that intricate, delicate, wonderful "harp of a thousand strings," so fine as to be almost invisible and so marvelously adjusted that it responds to every shade and pitch of sound, is neglected, exposed and banged about as though it were a thing of no consequence.

Nothing should ever be allowed to penetrate beyond the outer covering of an infant's ear, not even water. If the baby is to be immersed in water for a bath, very small wisps of cotton should be gently inserted in the ear-holes. Always appreciate the fact that young children's tympanums are exceedingly sensitive.

Ear-wax should not be removed from the ears with a hard instrument, and indeed it should not be forcibly removed at all. As much wax as ought to come to the surface will be expelled by natural processes, the movement of the jaws, etc. This should be gently washed away when bathing. Harsh digging into the ears should never be allowed; any hard treatment rolls and packs the wax.

Ear-ache or pain in the ear is quite common in children, and often babies cry with it when the cause is unsuspected. This subject is fully treated elsewhere.

The ears should always be protected when exposed to the cold or a storm, not only that the outer ears may be preserved from freezing or discomfort, but that the inner cavities may be secluded from all chance of injury from wind and cold. A sense so precious as the hearing cannot be too carefully looked after; once lost entirely, no possible medical skill can ever re-create it.

PART IV

CHAPTER X.

Care of the Extremities.

THAT it is absolutely necessary for every one to use one hand more dextrously than the other is seriously contended by many physiologists and surgeons. It is said one who uses one hand more frequently and energetically than the other is not able to stand erect or move as gracefully as one who is ambidextrous. One hip is apt to be higher than the other, and there is a perceptible curvature of the spine very often. Modern authorities strongly advocate training the child, as he begins to use his hands, to use both with equal frequency. Children, they claim, will do so naturally if they are not encouraged to carry, hold, play or work with one hand to the practical exclusion of the other.

The Advantages of Ambidexterity.

If one desires perfect, well-balanced physical development, it is best to train children to the use of two hands with equal skill. Carrying a baby on one side more than the other, so that it must perforce take whatever is handed it with the outside hand, is considered the starting-point of being "right-" or "left-handed." The slightest tendency toward an over-use of one hand is fast strengthened by the constant yielding to the inclination; it is quite difficult to overcome it after several years of physical activity. Still it is quite possible, for if a person loses one hand by accident, he is sure to acquire, in

time, an extraordinary expertness in the use of the other; and left-handed people very frequently learn to use both hands for writing, drawing, sewing and many other achievements. In the finer trades, such as wood-carving, it is essential that both hands be equally skillful, and workers find it quite possible to acquire this ambidextrous skill when necessary.

When a person is using one hand only, the greater part of the weight rests on one foot; one shoulder is raised higher than the other; and there is an uneven distribution of the forces. Children who constantly carry weights with the same hand, such as books, skates, etc., draw one side of their bodies out of shape, and sometimes an arm is lengthened out of proportion. Children can be trained to write with the left hand as well as the right while the muscles are growing, and do many other kinds of work of equal dexterity, and thus the ill-proportion due to too great a development of one side of the body may be avoided.

The advantages of training both hands alike are a harmonious development of all parts of the body, and consequently a better poise, a stronger, more graceful growth and better health.

The Hand an Index of Character.

A proper care of the hands indicates refinement and a love of the beautiful. It is impossible for those who labor continuously with their hands to keep them soft and white and delicate. But strong hands are attractive; pale hands are not desirable, since they indicate weakness or lack of health. But all can be kept very clean, and the skin may be treated so that it will not be dry, hard and discolored. Working men and women are too prone to ignore their hands because of lack of time, and because they believe work makes them ugly, and care is of no use. But a skillful, dextrous hand is

handsome if one does his best with it. Any strengthening, invigorating process adds the grace of proportion and tends to improve the texture.

Extreme cleanliness is of most importance in caring for the hands. If washed, and then dried before the last remnants of dirt are removed from each wrinkle, line and fold, the hands will retain a grimy, uncared-for look, and be more difficult to clean the next time. It is better not to wet the hands at all than to wipe them dry before every particle of foreign matter is removed. In cold weather they will chap, crack open and bleed much more readily for not being thoroughly washed with warm soft water and soap and well rinsed with clear water before drying. To rub working hands from the wrists downward one or two minutes after washing will aid in keeping them flexible and shapely.

At night especially should the hands be made spotlessly clean. They should be soaked for several minutes in order to accomplish this, in a soft warm water containing a handful of oat-meal or a little almond-meal, then well washed with soap—cheap soap is no economy—rinsed and completely dried. A little lemon-juice will remove stains and discolorations, and a mixture of glycerine and alcohol will heal broken places and chaps. Mutton tallow or cold cream are still better if the hands are badly chapped.

It pays to be thus attentive to these useful members of ours, and it need not be looked upon as a sign of vanity. One keeps one's self-respect better, even though one's daily occupation be laborious and coarse. Clean, well-kept hands stimulate exertions toward higher things. A person who takes proper pride in the hands will never be content to sit idly and deteriorate, or let his mind rest and dwindle away for want of a little mental exertion. He who is satisfied to sit down in the

midst of his family, with soiled, neglected hands and face, untidied hair and slovenly dress, is careless of his dignity, of his own happiness and well-being, as well as of the respect and affection of his friends.

The Manicuring Fad.

People who have too much leisure and too little solidity of character make a fad of manicuring, and foolishly expend more time, energy and money upon extravagant attention to the hands and feet than upon any of the useful activities of life. The elaborate sets of implements, exhaustive treatises upon the care of the extremities, the anxiety in consulting manicures among people of small brains, are a travesty upon cleanliness. It is not necessary that one should devote one's life to washing the hands and paring one's finger and toe nails. One or two simple instruments and the expenditure of a few minutes' time in each day are sufficient for all practical purposes.

A person may be exceedingly neat who washes his nails daily with a nail brush and good soap and water; who uses something to clean underneath the nails, an article to cut and slope them, who pushes back the scarf skin and carefully cuts away all loose or hanging shreds of skin, and who polishes the nails occasionally with a little nail powder and a chamois skin. Too highly polished or fantastically cut nails betray a tendency toward snobbishness.

It is a pleasure to grasp the well cared for, useful, strong hand of a thoroughly healthy, magnetic man or woman. A hand that is dry and hot denotes ill-health or an absence of self-control—a state in which the nerves, the motion, the inclination run riot. A cold, clammy hand denotes a bad condition of the body or mind.

Well cared-for hands will do better service than neglected ones, besides being more comfortable and putting the owner at his ease.

The Feet in Health and Comfort.

The care of the feet is even more particular than that of the hands, for not only does our health and comfort depend upon it, but to some extent our morals as well. Who can be generous and kindly when the liver or stomach is out of order? And even more difficult is amiability when one's feet are painful. A tight shoe, a bunion or a corn has been more than once responsible for a cross word which broke up a friendship, a frowning look or a strong expletive which discouraged or rebuffed an acquaintance or applicant for a favor. The feet have been greatly abused, more so than the stomach, and they are resentful.

They are secluded from air and sunshine and are often squeezed into tight shoes; they are forgotten too often, and perspiration and dust are left to dry into the skin; they are seldom properly clothed and more seldom given their liberty to earth, air and light; consequently we are a nation of "tenderfeet," and corns and bunions are our constant "familiars."

Injuries to the feet begin almost with the first shoes. The fat little foot is crowded into an unaccustomed covering and kept in its case too long at a time. As the child grows, mothers do not remember how fast the little feet are changing their shape, and the old shoes are retained until the toes are cramped, the heels pinched, and little calloused places appear on the little pink soles. The little ones acquire an awkward, limping walk if the shoes are ill-fitting, and probably never obtain the grace and ease of carriage which the free, unhampered youth should exhibit.

Foot-Covering—Shoes, Stockings, Etc.

The problem of foot-coverings is a perplexing one at best. If shoes are too large, they slip about and rub blisters in the skin which finally become calloused. If too tight, the pain is insupportable, and the evil consequences life-long. Highly polished leather often makes the feet burn and smart, especially if worn with tightly knit stockings; such a dressing is almost impervious to air. Yet "going barefooted" is not desirable, even though civilized society had no prejudices in favor of clothed feet. The injuries we would be constantly receiving might be worse than our uncomfortable shoes and stockings, though some of the best-shaped and soundest feet are of those which were bruised, rasped, scratched and toughened through a barefooted childhood. Sandals are no longer made for general use, and we can do no better than to accept the shoes of the present day, choosing them as perfectly fitting as possible.

Allowing the feet to be entirely uncovered a portion of every day will benefit them greatly; contact with the ground is good, also, for the feet themselves and for the general health. Children usually love to bare the feet; though it seems cruel to run the risk of the cuts and bruises which they are likely to receive.

Constant attention to the pedal extremities will do much to alleviate the pain and soothe the feeling of ache in feet that have become tender and painful by past abuses. They should be washed clean at least once every day with warm water and soap, and once or twice a week be soaked for twenty minutes in hot water containing borax or ammonia and good soap. After this last treatment, they should be thoroughly rubbed with a coarse towel, and the tough or dead skin removed with pumice soap or fine sand paper. If they

are then tender to the touch, rub over and into the skin thoroughly with tincture of arnica or extract of witch hazel, and dry completely, especially between the toes.

Many people find that a foot-bath of salt and water toughens the cuticle and renders the feet less liable to pain or injury. Rubbing the feet under water that is kept as hot as it can be borne, for ten minutes, is also an excellent method of soothing painful feet. Paint bunions with iodine after bathing, and begin the treatment as soon as they make their appearance, if possible. It is important that toe nails be kept clean and carefully trimmed. Ingrowing nails should receive due attention immediately, and crowded or distorted nails relieved from the ill-shaped shoes which caused them, and treated daily; softened and trimmed until they grow naturally once more.

It is difficult to advise one as to the kind of stockings to be worn, or concerning the material of which shoes should be made. A great many physicians condemn all hosiery except that made of fine, loosely woven wool. Others advocate silk, which is also strongly objected to by others, on the ground that friction between the garment and skin disturbs the natural electricity of the body; cotton and silk are said to be too close in texture to allow the escape of perspiration. But cotton can be woven into any kind of texture desirable, and where it is most agreeable, we do not see why it may not be worn. It is well to change stockings every day—not necessarily sending them to the wash after one day's wearing, but lay them aside for a good airing and drying. This is true of shoes; they need not be changed daily, but it is best to stand them away for two or three days after having worn them a week.

Rubber overshoes or boots should never be retained a mo-

ment longer than necessary. They are at best necessary evils, as they are so confining, allowing no ventilation whatever, and keeping within the perspiration of the feet or any dampness that may have crept inside the shoe. A stout leather shoe is better for wet weather, and even though all moisture is not excluded in the event of a long tramp, no harm is done as long as the wearer is in motion. People do not take cold in the wettest clothing if active every moment while in the open air. The instant one reaches home every damp garment should be removed, the feet rubbed until dry and in a glow, and dry shoes, stockings and other garments assumed.

The necessity of securing ease and soundness in the feet is apparent when we reflect that if our feet distress us, we will not exercise, or walk out in the fresh air enough to preserve good health. Painful feet affect the whole system and are very apt to depress the spirits, besides making one disinclined to either physical or mental exertion.

We are keenly sensitive to our own discomforts, but we forget those of little children all too often. Never wait until a child complains of a shoe that has become too tight, or of any pain or uneasiness that its foot-covering may give. Examine the little feet daily, and with your own eyes see that all is well with them. Due attention and care during childhood will abate much of the distress known to mature growth and do much to secure that beauty of outline and purity and plumpness so much admired in feet.

PART IV.

CHAPTER XI.

Poisons Used as Medicines.

A BLACKSMITH, while engaged in work, accidentally injured one of his fingers severely, and suffered intense pain. A physician was called to see him. Of course the man wanted to get relief. The doctor gave him an injection of morphine, which to a certain extent and for the time being paralyzed the nerve of sensation, and the man fell into a stupor. But during the night, when the man had recovered from the stupefied condition induced by the morphine, the pain returned worse than before. The doctor was again sent for, and, being displeased at being called out of bed during the night, he declared, with an oath, that he would fix him, meaning, of course, that he would give him a large enough dose of morphine to keep him quiet till morning. And he did fix him. He gave him a dose of that poisonous drug which put the man into a sleep from which he never awoke. Some days after the unfortunate man's little girl, seeing the doctor on the street, pointed to him, and said, "There is the doctor who killed my papa."

Poisons Are Not Remedies.

We refer to this as a warning, and to show the importance of people informing themselves in regard to the poisonous nature and injurious effects of many of the drugs employed

by regular physicians and labeled "remedies." They are not remedies, they are dangerous poisons; and on every hand their pitiful results are apparent. It is said that in Chicago alone there are sixty-five thousand morphine fiends, and were these cases investigated, it would, we are persuaded, be found that, in the great majority of them, these pitiful victims of the morphine habit have been led into the habit through the prescriptions and injections of reputable doctors who have prescribed or administered the "dope" for the relief of pain. But there are safe and effective means for the relief of pain without resorting to such a drug. To illustrate: A patient once called at the writer's office suffering severely from colic, result of a deranged condition of the digestive organs. By injecting morphine we could easily have quieted the patient for the time being, but in that way we could not have removed the cause of the trouble. The pain is not the disease. It is rather a telegram to the brain that something is wrong; it is a sentinel warning us of danger; and to silence, as it were, the pain, without attending to the danger of which it warns us, would be as unreasonable as it would be to knock down a sentinel when he comes to warn the army that danger is near. We therefore did not knock down the sentinel, but gave heed to the danger of which he warned us. We removed the cause, and the sentinel became quiet; the pain immediately ceased. We got him into a carriage, took him to his home and administered an emetic. As soon as he vomited, and threw off the undigested food, and his bowels were relieved by copious injections of warm water, the pain disappeared, and the patient went to sleep.

But suppose that, instead of assisting nature to get rid of the cause of the trouble, we had administered morphine either by hypodermic injection or otherwise. We would have low-

ered the vitality of the patient, and by leaving in his system what was causing the trouble would have left him in a worse condition than ever; whereas, by the simple and effective treatment spoken of above, he made a quick and permanent recovery.

With emphasis we would affirm that poison, the natural tendency of which is to kill, cannot have a curative effect. The very nature of the thing is to destroy life, and we claim there is no such thing as a medicinal or curative dose of morphine, arsenic, strychnine, digitalis, or any poison used in medical practice. It is true a patient may recover after he has for weeks or months used, according to a doctor's order, the poisons mentioned. But that does not prove that the poisons have helped him. He has got well, not because of the poisons he has taken, but in spite of them. He has had vitality enough to resist their injurious effects, and, notwithstanding them, has got well. But certainly no thanks to the poison. Poison destroys the vital force according to the size of the dose. A certain amount will kill outright; a less amount will only kill partially; a still less amount will do less damage. But the tendency, first, last and all the time, is to destroy the life power of the patient.

We, of course, cheerfully admit that there are agencies in nature the tendency of which is not to impair, but rather to arouse and quicken action, and which in consequence are of great curative value. Capsicum, for instance, is such a remedy. A test under the microscope upon the blood corpuscles shows that a weak solution of capsicum has a tendency to stimulate, as can be seen by the increased action.

Lobelia, like manna, is in many diseases a safe and effective remedy. A weak solution of lobelia will relax the blood corpuscles, but will not kill, while a similar solution of alcohol,

arsenic, morphine or digitalis will kill. It is a mistake, then, we repeat, to suppose that a small dose of these poisons will give a healthy stimulus. There may, indeed, be increased heart action after some of these poisons have been taken. But this, we claim, is simply due to the fact that the vital force is using its power in an exhausting effect to expel from the system the deleterious agent for which it has no use and whose presence is injurious.

Mercury.

Mercury is the mainstay of the allopathic physician. With him it is the king of remedies. He uses it more frequently than any other drug. For centuries it has been dealt out as an alterative when the fact is it is one of the most destructive poisons known to science. One of the first symptoms produced after its introduction into the system is salivation. This is a profuse discharge of saliva, a swelling of the tongue, loosening of the teeth, catarrh, paralysis, locomotor ataxia, and other conditions not so well known. It is the main cause of tertiary syphilis, in which the disease appears in the deeper tissues, attacking the bones and the nervous system.

Mercury is a poison and should have no place in the materia medica of any physician. Its proper place is in the arts and sciences. While it is not used so much as formerly, yet many physicians of the old school administer it in syphilis and discard it in other diseases. No wonder that syphilis is so formidable and difficult to cure. I have had scores of cases in which the patient had been mercurialized to such an extent that both doctor and patient mistook the effects of the mercury for the ravages of the disease. The discontinuance of the mercury for thirty days and some simple vegetable tonic and alterative usually suffice for a cure. A physician who would prescribe mercury in any of its forms for the cure of syphilis

or any other disease certainly knows but very little of its effects. It is far more destructive to the health of the people than the disease which it is given to cure.

In the following chapter we shall point out how pain can be relieved by the proper application of heat and cold. In this chapter our object has been to warn against the dangerous injections which do not cure, but which in thousands of cases beget habits which ruin their victims for life. When people are sufficiently enlightened to demand a more rational and scientific mode of practice, and will not employ the doctor who uses these dangerous drugs, the profession will abandon them. Let common sense be our guide; follow its leadings, and it will show that whatever lowers the vital force of a well person will never restore the vital force of a sick one. Prove all things; hold fast that which is good.

PART IV.

CHAPTER XII.

The Application of Heat and Cold.

KNOWLEDGE, it has been said, is power. Nowhere is this more apparent than in the treatment of the sick. Those who have seen the result of the application of some of the simplest remedies will be ready to admit the value of a little knowledge in regard to those remedies. They are very simple, and yet many fail properly to apply them. It was a simple matter for Columbus to make an egg stand on end, and no one, after he saw him do it, could fail to do it also. It is so in the application of the simplest remedies. They are in most cases very effective and easily applied, and yet in the hands of many they fail, simply because people do not know how to use them. This is often the case in the application of heat. Those who understand the physical constitution and have had large experience and success in treating the sick know that when the vital force of a patient is exhausted heat is one of the best stimulants that can be used, and this stimulation can be variously applied. It can be applied by the foot-bath; by the vapor bath; by filling a rubber bag with hot water and applying it to the patient's feet, or other parts of the body. It can be applied by hot fomentations such as a woolen blanket wrung out of hot water. But, as has been pointed out by Prof. Kirk, one of the most effective ways of applying is in the form of a bran poultice. And it is in the

application of heat in this form that many fail. A friend who was visiting us some time ago was seized with a violent pain over the region of the kidneys. A large bran poultice was applied, and in a very short time the pain was gone. He told us that although he thought he was familiar with bran in the application of heat, he had never in reality seen a bran poultice before. The poultices he had hitherto seen had been too small, so small that in a very short time they had lost their heat and their effect was *nil*. But in this case the poultice was large, and, as he said, retained its heat almost the whole of the night.

The Right Way to Make Poultices.

Now, it is just there that a great many fail in applying heat through the medium of the bran poultice. Their poultices are too small and do not retain heat sufficiently long to accomplish the results desired. Make your poultices in this way:—Take from a quarter to half a peck of good wheat bran, place in the oven for five or ten minutes in a common bread pan. Have some boiling water ready, and a large spoon; pour the water on slowly, being careful not to get it too wet. If made too wet it will be spoiled. If not too wet it will give out heat and moisture slowly. Place it in a large stocking or pillow slip, or bag made for the purpose, and then apply it to the affected parts. If it is desired to place it to the back, see to it that a sufficient thickness of towels or other cloths is put on the bed to prevent the moisture from wetting the bedding; place the poultice on the top of these, and let the patient lie down on it. If too hot, put a thickness or two of toweling between the poultice and the patient's skin, and remove them as the poultice cools.

Another very effectual way of applying heat is the foot-bath. Take a good-sized pail that will hold at least three or

four gallons. Begin with water not too warm, and gradually add to it, dipping out the water as it cools, and adding more hot water to it, gradually raising the heat until it is as warm as the patient can comfortably bear. If this is kept up for forty or fifty minutes as it should be, the patient will sweat freely, and the stimulus will be most helpful.

We claim these things of sufficient importance to justify us in writing of them as we have. For if rightly applied they are effective of great good, while if bunglingly applied they will fail. Let those caring for the sick keep in mind the object to be attained and suit the means to the end. Instead of following hard and fast rules let them exercise their own brains, let them think for themselves and adopt such methods as common sense seems to suggest.

Where Cold Applications Are Beneficial.

While many cases of sickness call for the application of heat, there are others which as surely call for the application of cold. And then again, there are cases which call for the application of both heat and cold. For instance, when a person has been overtaxed mentally, and an over-supply of blood has rushed to the brain, leaving the extremities with a corresponding under-supply, we have a case in which both cold and heat are demanded. In that case wonderful relief would be experienced by placing the feet in hot water until the extremities are relaxed, and using cooling applications to the head. A great many persons, while realizing the advantages of hot applications, have a prejudice against the use of cold. This prejudice may have arisen from the fact that bad effects have sometimes followed the unintelligent and indiscriminate use of cold. Intelligence must be exercised in the use of this wonderfully helpful agent. A strong man, let us suppose, is

stricken with typhoid fever. His temperature is so high that he is delirious. Now is the time for the application of cold. Cool your hand in water and place it upon his head, and the effect will be soothing. Take a towel wrung out of cold water and gently apply it to the fevered head, and again the effect will be refreshing. If the fever is still raging, and the patient is undressed, folded in a sheet wrung out of cold water, and then covered up in bed, perspiration in a very short time will start and great relief will be experienced.

But suppose the hot stage in the progress of the disease has passed, and his temperature has run down from far above normal to considerably below it; now you have reached a point where the continued application of cold would be injurious if not absolutely fatal. While the fever was raging, and the very life of the patient was being consumed, the application of cold was life-giving. But now, when the fever is gone, and the temperature is abnormally low, the continued application of cold would be fatal. In the heat stage it was the patient's life; in the cold stage it would be his death. Intelligence, we repeat, must be exercised in the use of this most helpful and curative agent.

Let us suppose a case of pleurisy. The sufferer is in a high fever, suffering great pain and laboring to breathe. You apply your cold application to the inflamed side, and immediately the patient feels that the very thing needful is being done. It gives relief. As soon as one towel is heated by the fever which is raging in the body, you have another cold one ready to apply. You keep this up with increasing comfort to the patient. And in this way you must fight the pain until it is gone, and the patient is able to lie on the affected side.

But let us assume that while you are prosecuting this helpful treatment the patient begins to show signs of chill. The

heat of the body fails before the cooling of the pleura has effected its work and relieved the sufferer of his pain, and a point is reached where for the time being the cooling must stop. In that case take a small blanket, roll it up, and then pour boiling water into it. In this fomentation wrap the feet and legs of the patient, and again you may safely proceed with the cooling of the inflamed side until the pain is removed.

There are many other cases in which the application of cold is helpful. In diarrhea, for instance, small enemas of cold water are of great benefit.

The Importance of Simple Remedies.

If people would consider these things; if they would endeavor to become intelligent in the application of these remedies; if they would do a little independent thinking, they would have little trouble in determining when to apply heat and when to apply cold, and how long to use one or both. The feeling of the patient is often a good guide. We should recommend mothers especially to study these subjects and become intelligent in the use of the simple agents found in every home. For while, as we have said before, we are not opposed to non-poisonous and helpful medicines, we are desirous to impress upon all the value of those simple remedies within the reach of even the poorest. We hope our readers will follow out the few hints we have given and be able intelligently to apply the remedies we have mentioned.

PART IV.

CHAPTER XIII.

Unnecessary Surgical Operations.

IN A FORMER chapter we spoke about unnecessary cutting. We deem the subject of sufficient importance to return to it, and will endeavor to illustrate the necessity of people knowing something themselves of the art of healing, and not following blindly the dictates of any man simply because he has attended a medical college for a few years and writes M. D. as an appendage to his name. The following case will serve to illustrate our point:

Some time ago a merchant in the city of Chicago injured one of his limbs. The injury was painful, and a doctor, educated after the most orthodox fashion, and accredited by one of the most rigid tribunals of medical orthodoxy—the Illinois State Board of Health—was called. He examined the injured member, and for a time treated it according to the approved manner of his school. But his treatment was in vain. The patient gradually grew worse. The doctor, having exhausted his own resources, suggested it would be well to call in some one else to consult with him in regard to the case. The man's family immediately consented, and two of Chicago's most prominent surgeons were called in consultation. They examined the limb, pronounced it impossible of cure, and advised that it be amputated below the knee. The patient, submitting to what he thought to be the inevitable, agreed, and the day following was fixed as the day when the surgeons would re-

turn and perform the amputation. The merchant's wife, however, was opposed to the operation, and, without informing her husband, she notified the surgeons not to come. She believed the proposed amputation unnecessary. She knew of a nurse who by skillful manipulation of injured limbs had cured them, after the doctors had failed, and she fondly hoped the nurse might be able to do something to save her husband's limb. She spoke to her husband of the nurse's treatment, and he finally consented to allow her to try. She undertook the case. Without the use of drugs; with a gentle massaging of the limb every day, it began to improve, and in a few weeks was restored to such an extent that the patient was able to get around; amputation was avoided, and the limb, although stiff, is a comparatively well and useful one today.

Now, is that by any means a singular case? There are thousands of such cases happening every day—cases in which patients are being dismembered and crippled for life when in reality no necessity for amputation exists. What we want to impress upon our readers is the great importance of understanding what is possible to accomplish without resorting to the surgeon's knife. Acquaint yourselves with the virtues of hot and cold applications; learn the virtues of gentle massaging, or rubbing; in that way assist the healing processes of nature, and life and limbs, ofttimes sacrificed by the surgeon's knife, will be saved.

What Sympathy and Common Sense Can Do.

Another case in point will still further illustrate what is possible to accomplish without cutting. The patient was in an infirmary suffering from a diseased foot. After consultation on the part of the faculty, it was decided that cure was impossible, and that amputation was necessary to save the patient's

life. He had what was called "cancerous gangrene." The leg was extremely painful, so much so that he could not bear to have any one touch the bed on which he lay. A lady who had never studied in a medical college, whose qualification for healing was a sympathetic heart, a large amount of good common sense, an observant mind, and a fair knowledge of simple home remedies, told the patient that, notwithstanding that the M. D.'s had condemned his foot to amputation, it could be saved. He gasped at the thought, and said he was willing to do anything possible if his foot could be saved. She got him to abstain from all liquors. She put him on light and easily digested food. She supplied poultices of potatoes and buttermilk to cleanse the wound. She used for further cleansing, and as an antiseptic, acetic acid diluted in water to the proportion of one teaspoonful of acid to a pint of wter. She used a creamy lather of good shaving soap, and by a generous use of that simple remedy relieved the severe pain. She kept that treatment up faithfully for weeks; improvement gradually appeared and in about three months the patient was able to walk.

Give Nature a Chance.

Scores of such cases might be adduced, showing that amputation, in a great many cases, could be avoided if nature were only given a fair chance. Of course, it is true that there are cases where amputation is needful. A limb may be so crushed that there is no possibility of saving it. But while that is a fact, it is also a fact that in a large proportion of cases the amputated members could and ought to have been saved. We earnestly trust that the readers of these pages will think for themselves; that they will so inform themselves that they will be able to act intelligently in such cases. We hope they will bear in mind that, however good a medical man's intentions

may be, his environment and education, during all the years of his college course, have been such that it is almost impossible for him to believe that there is any good outside his own materia medica. Remember, moreover, the mania for cutting which is abroad among our M. D.'s in these days, and be sure that the knife of the would-be surgeon is necessary before you consent to his cutting into your own flesh, or the flesh of your friends. Investigate; hold fast to that which is good. Remember that your Creator has given you a brain to think for yourself. Do not delegate your thinking to others.

A Hell in Dakota.

The following account of a case that fell into the hands of M. C. Keith, M. D., for treatment, contains a warning that should be heeded by every American citizen. He says:

"We are quite sure we are right when we assert there is one hell in Dakota. It is located at Jamestown, and is known to the public as 'The Insane Asylum.'

"This hell is, or was, presided over by a doctor of the old school, and is run, as are all kinds of hell (so far as our knowledge extends), by the power of brute force, without any regard to love or kindness; and it is ready to take in a few more of life's unfortunates at any moment and govern them in the same manner. Supported by the taxes of the people of the State, the head of this institution can use these taxes to produce a hell.

"How do we know it is a hell?

"There was a man who had a wife, and she was somewhat sick. The local doctors did not know what was the matter with her, and so, after they had called one after another, they happened to strike a scientific medical gentleman, who had much experience, and he decided that this sick woman had

some trouble with the 'uterus.' Then this scientist examined and found the game he was looking for, and went to the unthinking husband and told him: 'Sir, you must have an operation performed on your wife.'

"So the husband told the wife, and as the wife had great faith in this scientific doctor, who was a regular of the olden stripe and all that, she desired to have this operation done according to the latest improvements in the scientific art of surgery.

"As these old-school doctors all hang together, the first one went and called another, and went to work to make this operation on the sick woman's uterus. The operation which was to heal this sick woman was the operation of sewing up the uterus, which this allopath had found out was ruptured or *'lacerated,'* as he called it, *'Laceration* of the os.'

"The regular doctor loves the uterus, and he always finds something wrong with the uterus and sews it up or does something with it. Without a uterus to fool around the allopath would starve to death. After the allopath operates on this sick uterus the woman gets better or dies. And the operation is always very scientific and very allopathic. But quite often death ensues.

"As long as there is a uterus to work on the allopath is all right. But when there is no uterus, then the allopath allows the unfortunate patient to die. Witness Garfield. If Garfield had been blessed (or cursed) with a uterus, they would not have punched a passage in the wrong direction, but they would have sewed up the uterus, and possibly he would have done better. He could not have done anything worse than to die. So Conkling. They punched at a boil on Conkling's head. He might have lived if they had found something the matter with the uterus and been fooling around that uterus. But unfortun-

ately he did not have anything which they were familiar with, and the head was a piece of anatomy which they were not familiar with, and when they cut open his head Conkling died.

"Call to mind Bishop, the mind-reader. These doctors knew he was in a comatose state, but they did not know where to look for the cause of his sleepiness, and as he did not have anything in the shape of a uterus, they had to see what was the matter, and they cut open his head, and of course Bishop was too dead to ever wake up again.

[It may be added here that the "eminent" physicians and surgeons who attended William McKinley knew no more about his case than any American man or woman of ordinary intelligence. They found out what was the matter—if they ever found it out—only after the gentle spirit of the beloved President had passed away and their own bloody instruments of "science" had mutilated his remains.]

"Call to mind the hundreds you have known of the men who have died while under the hands of the allopath, and while they were giving their poisons and they were cutting open some unwonted place in the anatomy of the body, the patient died. But they are familiar with the uterus. They are constantly at this unfortunate organ.

"And this patient in Dakota had the uterus all right, as she had borne four children. Still, notwithstanding she had borne children, something was the matter with the uterus, and this allopath's decision was to sew up the rupture (for so he called it) and then she would get well. This allopath doctor had his man to believe he was all right and went to work to perform the operation on the man's wife. They gave this woman some chloroform. This is necessary to do, as no one in sound mind

could suffer the pains of having the needles placed into the living flesh.

"So they gave the chloroform to the woman. They kept her three hours under the influence of this anesthetic. They were three hours over this job of stitching, and when the unfortunate lady came out of this sleep she was weak in the head. You will not wonder at this, as she was under this influence of chloroform for about three hours. It makes any one weak in the mind to take these anesthetics. When she commenced to recover she did not appear to be any better than she had been when she commenced to have this trouble; the scientific allopath had gone home, they called in another one of the same school and they gave her some medicine. In spite of their allopathic medicine they did not seem to get the hang of the case, and she was as bad or worse off than she had been before the sewing of the uterus was accomplished. So they called in some more of these allopaths, and as they are all tarred with one brush, and what one says another will swear to, they said the operation was all right, but there was something the matter with the brain, and as they could not treat that brain so very well where they were, it would be best to have this unfortunate woman in the insane asylum.

"So they had the papers made out, and while she was under the 'influence of mania' from this three hours of chloroform, they shipped her out to the Jamestown, Dakota, insane asylum.

"When they had her there, as they were high-toned allopaths, they would cure her at any rate. Would you not think so?

"But the doctor who presides over the insane asylum at Jamestown is not one of the kind who is killing himself with exertions to save life or mentality. He is a society man and

he loves the flesh of this world and has no time to look after the welfare of his patients. He had to be a politician in one of the two great whisky parties. He had political dignity. An allopath has some dignity to sustain, and when you do not allow him time to attend to his dignity you hurt an allopath's feelings. The dignity of this insane allopathic institution has to be sustained, and while this dignity is being sustained there will not be much alleviating of suffering. The State pays; why should the doctor exert himself?

"The woman went to this asylum, and, as any other patient, she was treated allopathically. It was not long before something was said, and the woman resented it, and they had a fight. They, the attendants of this allopathic asylum, had a fight with this woman who had been operated on for a rupture of the 'os,' and they had quite a fight, too, by all accounts. Among all the other things which were done, they, that is the allopathic regular medical attendants, among other little amusements, knocked the woman down, and something else, and then, as that was not enough, they hopped on her and tore her right eye out of the socket. You will say she must have been a very high-tempered woman. You see, she at the first had an allopathic surgeon to operate on the uterus for a lacerated, ruptured womb, and then she was sent to the allopathic insane asylum, and as a help to get her mind right, these allopathic, regular medical attendants tore her right eye out of the socket. They were a board of health, so to speak, and it was necessary to knock the right eye out. Would you like to know what they did then?

"Then these allopathic assistants strapped this woman on the bed, tied a pair of gloves over her hands and kept her in this position, not allowing her to get up to attend to the calls of nature or to have a drink of water, or to do anything, and

to prevent her from making too much noise while the presiding allopathic, regular medical doctor was taking his ease, they gagged her.

"A great many persons will think this happened in some of the dark ages, and when the newspapers were not printed. But it did not happen so very long ago. In the year of 1888 these occurrences took place, and the town was Jamestown, which is in the State of North Dakota. And the doctor had power enough to keep these things out of the newspapers. All this and a thousand worse things than we have printed are all true. If you would hear some of the worst things which have ever made your blood boil, and if you wish to know how to have a hell, write to C. Nordstrom, of Mandan, North Dakota, and send him a stamp. If you think you are in love with the allopathic way of doing business, write to this gentleman and see if you do not get enough to harrow up your feelings for some time. These are facts which are on record, and the reason why they have not been strewn to the winds is because this doctor is in the political party of power, and has been able to bribe the newspapers of Dakota so as to shut their pens up.

"This is a Christian country in all things save in the allopathic school of medicine and in the alcohol traffic. Both of these poisoners are in control, and they are doing their best to poison this nation as fast as they can. This woman was only one victim among many now incarcerated in the hells all over the country. How long, O Lord, how long?

"When the husband came and found the eye of his wife knocked out, what do you think the doctor told him? You could not guess in a month of Sundays. The doctor and the attendants told the anguished husband that his wife, *'not want-*

ing to see the attendants, had gouged her own eye out.' How does this strike you as a story?

"When the husband went to see her they took time to take the gloves off, but as she had been in that position some time, all the skin peeled from her hands and she was really crazy.

"Suppose you had your uterus sewed up, and while it was being sewed up you had lain three hours under the influence of chloroform? Then, to assist you in recovering your health, you had been sent to an insane asylum, and the attendants had fought with you as we may suppose Paul fought with the 'beasts at Ephesus,' and while you were in the fight, they had knocked your right eye out; then they had strapped you on a bed where the feet were each one drawn to a post apart, and the hands apart over your head, so as to present a spread-eagle appearance; and you were kept in this position until the skin peeled from the hands; and you were obliged to lie in this position all day and all night; yes, many nights; some three or four people coming to untie you and clean you up when their convenience suited them; away from your husband and your four little children; with only brutal attendants—for you will acknowledge they must have been brutal to have accomplished all of these things. Think of this woman's position. How would you be about that time? Especially if you had a uterus and you were sent to a place where the attendants and all the rest of the MEN (?) wanted to own what should be your own private property. What is your opinion? Do you think any name is too bad for this institution at Jamestown, North Dakota? And do you not think, if we should call the doctor who has charge of this institution a devil, we should not be far out of the way?

Reason, Calmness and Kindness.

"In the condition we have described, this unfortunate woman was brought to this city, a year ago. She broke all the windows in a room, and then we gave her something which helped her to be calm, and we did not have to give anything like opium, either. Nor any of the cursed-of-God bromide of potash, which is so great a favorite with the allopath and his chemical mind. We treated the woman to a dose of REASON, CALMNESS and KINDNESS mixed together. She grew better under this mixed dose and a proper diet. The main treatment was to cleanse that corrupt body. We did not have to use any strait-jacket. We did not have to strap this woman to each post of the bed. We did not have to call in attendants to tear out the other eye. As we said, we treated this woman as if she were human, and she came to understand she was in a place where the law of Christ was a living, daily, governing power. *'As ye would that men should do unto you, even so do ye unto them.'*

"After a time we had the woman examined. Not until she could reason about herself, and was desirous of getting well. And we found out what was the original cause of her sickness. You will want to know. She had borne four living children, and she had the piles.

"We do not think she ever had any rupture of the uterus. These doctors had never examined her for any rectal trouble, and they did not know whether she had ever had a passage of the bowels or not. They did not care. It was a hell sure enough, where they have things to knock out a woman's eyes if she is not accommodating to them. What do you think of an institution where brute force, whisky, allopathic medicine and the most shameful corruptions and immoralities have been

administered long enough to have a real insanity brought on.

"Would not that place be called a hell? What would be your idea of the parties who would keep such a doctor at the head of a public institution where these villainies were of daily occurrence? You will not wonder these allopaths want to have the medical laws in their hands so that no other school can have the chance to expose them and their cruelties. That is why they are so careful to 'protect the people from quacks.' He is a 'quack,' in their idea, who will say anything of their enormities and of their actions when they have the power.

"How many of these poor women have we known who have had some disease as this woman had and who could have been cured by some simple remedy, but who, falling into these allopathic hands, have had their ovaries cut out and then been ruined for life. We have no respect or patience with any set of men or women who can fellowship such works of darkness. We mean this. The churches are as guilty as the allopaths. Many of the ministers of the Gospel know of these enormities, and yet they will not say a word against them, because they are tyrants or are afraid of their salaries.

"Many of the legislators in Dakota know of the existence of this hell at Jamestown, and yet they will not do anything about it for fear of something which would hurt their political influence in the whisky party to which they belong.

"We believe there is a time coming when all of these things will be righted and all of the allopaths will have to hunt up some other work than to live by poisoning the people. The time is coming, and the day is slowly dawning.

"This unfortunate woman has been with us for almost a year, and she is as nice a lady as one could wish to see. Her mind is a little out of level yet, and she will have to be treated carefully for some time. But we say she was some time in

hell, and we have some compassion on any one who has been in hell.

"Do you think the doctor from this Jamestown institution will ever call on us for defamation of character? No. He knows better. The allopath does not want any publicity. They are traveling in the same boat, and many of them desire some easy place where they can run a hell to suit themselves. They think they have the softest thing in the world in sewing up these ruptured pieces of the uterus and in examining the inside of a woman.

"When you think that nearly all of the institutions in the United States are in the hands of these allopaths and that they are all (with so few exceptions that we may say all) engaged in keeping the people in ignorance of the best methods of keeping their bodies in good health, and that their remedies are nearly all composed of the most deadly poisons which they will not give to members of their own families, but will give to the members of your family, then, when you reflect a moment on these things, you will say with us, that if anything should be called a devil it is an allopathic doctor. And we are safe in saying that all their hospitals and all the institutions which they preside over are hells on earth. We get the light thrown on one of these places once in a while as we do now at Jamestown; and a short time since, at Rochester, Minn., where the immorality was as bad as in old Sodom; and at Tewksbury, Mass., where they tanned the hides of the human beings who had been sent there as paupers."

Dangerous Operations.

These, it has been said, are days of daring surgery. Operations which, a few years ago, the most skillful surgeons would not have dared to attempt are now performed with a fearless-

ness (we had almost said recklessness) which is almost startling. And in many cases modern surgery has been as brilliant in achievement as it has been bold in effort. But the very success of the surgery of these days has given rise to evils which the public needs to be guarded against. In almost every college the achievements of the surgeon have been unduly lauded; and in consequence every medical fledgeling who is annually issuing from those colleges seems to be fired with a consuming ambition to be a surgeon.

As the little boy in his first pants and possessed of his first pocket knife would fain try his knife on everything within his reach, so every little fledgeling in medicine would fain try the keenness of his lancet on the flesh of his fellows. The question as to whether a cure could not be effected as easily or more easily without cutting does not seem to be considered. They want to cut, and oftentimes they do cut when the cutting is not only unnecessary, but absolutely harmful.

A man was suffering severe pains in one of his wrists. He called in a doctor. The doctor diagnosed the case as a disease of the bone, and proposed to cut the arm open and scrape the bone. A friend of the suffering man advised delay. He doubted the doctor's diagnosis, and suspected that something else was the matter. He applied a towel, wrung out of cold water, between the shoulders. He kept that up until the root of the arm nerves was thoroughly cooled and the pain ceased. Instead of being a diseased bone, it was but a case of neuralgia in the wrist, and the proposed cutting would have been simply outrageous.

But there are many other cases in which cutting is resorted to unnecessarily, and with very harmful results. A child, for instance, has just recovered from an attack of scarlet fever. A swelling has formed on the neck of the child and the doctor

recommends the cutting of it open. And right there a serious blunder is oftentimes committed, for the state of the body immediately after a recovery from scarlet fever is not favorable for the healing of the wound made in cutting into such a gathering. In the language of Professor Kirk, the cut parts degenerate into sores that defy the usual methods of uniting the parts severed by the instrument. It is from those that danger arises to the lungs and chest generally. It is not from the matter contained in the swollen glands that have not been cut open, but from that which flows from sores that stand out against all efforts to close them. The danger of infection to the general constitution from the gatherings begins only when these have been prematurely cut into. If you would save the lungs, nurse the swelling into full ripeness, let it empty itself, or with the most gentle hand assist it when it is fully ripe. Then heat it properly, and there will not be the least danger to lungs or anything else. Instead of cutting, assist nature to cast out the waste matter. Apply fomentations and thoroughly stimulate action, and assist the breaking of the gathering from within itself. If the pain is severe, take a towel wrung out of cold water, and apply it not only to the swelling, but to the whole head and neck of the sufferer. Change the cloths as soon as they become heated; keep up that treatment until the fire in the swollen gland is moderated, and a welcome relief will soon be experienced.

The Mania for Cutting.

But not only is the medical profession suffering from a mania for cutting into the more simple cases—there is an ambition on the part of even the obscurest practitioner to essay the most difficult operations. A man is suffering from a pain in the right side of the lower bowels, and, sure as he calls a

doctor who has caught the cutting craze, he has appendicitis, and must be operated on. For, in these days, every pain in that region is appendicitis, and many, there is reason to fear, are being cut into and hurried to premature graves who never had appendicitis at all. The doctor cuts; he finds he has blundered; the patient dies; the grave covers up the doctor's mistake, and that is the end of it.

It is pleasing, however, to note that there is a growing revulsion from the present craze for cutting even in cases of genuine appendicitis. It is being learned that the trouble may be cured without the use of the knife. At a recent meeting of the medical profession in New York, Dr. M. A. Terry, Surgeon-General of the State, took strong ground against the use of the knife for appendicitis. He gave a list of twenty cases in which he had treated that disease successfully, not by the knife, but by what he calls the "oil treatment," consisting simply of a cathartic of castor oil and sweet oil. He spoke of prominent citizens of New York who had been operated upon and died, and intimated that if the cutting had been refrained from and oil given instead, they would probably have lived. When such men as Dr. Terry are so strongly opposed to the knife, it would surely be well for the ordinary practitioner who has an itching for cutting to "hasten slowly," and equally well would it be for the people whose lives are at stake to find out if there is not a better way before submitting to the surgeon's knife.

PART IV.

CHAPTER XIV.

The Helplessness of Doctors.

WE have no desire to undervalue the medical profession, or to underrate the knowledge of the men who are engaged in it. It is a noble profession. Many of those who are following it are men of extensive knowledge. They know every part of the human anatomy as perfectly as the most skillful and experienced watchmaker knows the mechanism of a watch, and yet who has not been impressed with the helplessness of the ordinary physician in the presence of disease? Notwithstanding their admitted knowledge of anatomy, physiology, pathology and their so-called science of therapeutics, it is a pitiful fact that in the presence of sickness and suffering men are oftentimes as helpless as a child. Nor would their helplessness be to be wondered at if the cases before which they are often helpless were impossible of cure. We believe that there are cases of sickness which no power on earth could relieve. The final and fatal sickness must come some time. But not unfrequently the helplessness of the ordinary physician is apparent even in cases where a little practical knowledge of disease and the simplest of remedies would enable one to relieve the distress and save the life of the sufferer.

A Life Saved by Cold Water.

The Rev. John Kirk, of Edinburgh, Scotland, mentions a case in point. It was that of a young man who was seized with violent pain in the bowels. The bowels were badly swollen. He had no passage whatever by the regular outlet, and was soon in intense agony. In this crisis the licensed physicians were called to see him. They pronounced it "locking of the bowels," and declared that nothing could be done to save the young man's life. A man was present who was not, in the generally received acceptation of the term, a medical man, but who was interested in medical matters, and had spent a good deal of time in informing himself on medical subjects. He believed that he could help his friend, but was naturally timid about assuming the responsibility of treating him. When, however, the doctors stated that the young man must die, his timidity left him, and, nerved to action by the hope of saving his friend's life, he went to work. He directed that the patient should be undressed and put in a bath tub. He then poured several gallons of cold water over the bowels, and the effect was more like a miracle than anything the spectators had ever seen. All pain fled in an instant; very shortly there was a free and natural movement of the bowels, and, as if by some magic hand, the young man was well.

Now what is the lesson to be learned from such a case? Is it not that we should do what we can to inform ourselves in regard to the treatment of the sick, and be ready to employ some rational and common-sense remedy, either before the regular M. D. is called, or as soon as his helplessness appears? Give, by all means, the duly educated and accredited physician what merit he deserves, but at the same time don't forget that a man may have spent four or five years in a medical school and yet be ignorant of the most simple and effective remedies.

The case cited above baffled the skill of the regular physicians, and yet how simple, and withal how rational, was the remedy which proved so effective.

"The healthful movement of the bowels," says Dr. Kirk, "is like that by which an earth worm moves along the ground." So long as the tube which is thus moving its contents along by contraction and expansion keeps moving all in proper order, so long no part can pass under or outside that which is before it. But when one part loses nervous tension and expands without contracting quickly enough, that is, both lengthens and widens, and fails to shorten and straighten, then the part behind it tends to worm itself into it, and the "knot," as it is sometimes called, is formed. The widened part then straightens and tends to shorten, but draws the part which entered with it. The "knot" soon becomes very firmly tied. No possible instrument can reach it in any way other than cutting the body open. But the action of cold is so powerful in straightening the tube over its whole length, that the "loop," as it is called, is drawn out, and the right state of things is produced.

The young man who saved his friend when the doctors confessed themselves helpless fortunately knew the remedy to apply, and a sufferer who otherwise would have died was restored to health. Hence the importance of people informing themselves in regard to the anatomy of the human system, and the simple remedies by which its ailments may be cured. A careful study of such a volume as this will do much in the way of fitting one to be his own physician when the regular and licensed doctor has proved, if not confessed himself, to be helpless. Meantime the great mass of the people are unable to help themselves in the simplest of cases. Thy have not given the art of healing the study which it mani-

festly deserves. They are ignorant of how to heal themselves, and when sickness comes they pay large doctor bills, and unquestioningly put themselves in the hands of men who, while diplomaed and certified as duly qualified physicians, are as powerless to cure them as they are to cure themselves. In view, therefore, of the helplessness of the regular and licensed physicians to grapple with disease and restore their patients to health, we plead for a better understanding of the body and its ailments among the people themselves. We plead for such an understanding, not with the idea of doing away with such a noble profession as the profession of healing is, but in the hope that, with such an understanding among the people, they will demand a higher grade of medical men, the abolition of poisons as remedies, and a more intelligent and rational treatment. In short, we plead for such an understanding in the hope that just in the proportion that people become informed, they will demand physicians who can cure, and retire to the limbo of a worn-out and neglected past those who do not cure but kill.

Vaccination.

Of all the delusions that medical men have clung to, in spite of overwhelming evidence as to its fallacy, vaccination is probably the worst. Mercury and blood-letting have each claimed its quota of victims at the hands of the so-called regulars, but now there are few who care to defend them. With vaccination, however, it is different. The sale and manufacture of the vaccine lymph is controlled by a few firms who have a direct interest in keeping up the fad. In Chicago, thousands of dollars are spent every year for this poisonous virus by the municipality. People are forced without any warrant of law, by health boards, to submit both themselves

and children to this worse than useless practice. Syphilis and scrofula in its varied forms are inoculated every day into the pure blood of the healthy, and many of them are ruined for life in consequence of it. We do not overstate or exaggerate the facts. In twenty-five years' practice, hundreds of people have been treated for various diseases which could be traced directly to vaccination.

What is known and sold as vaccine virus is a mixture of the original cow-pox of Jenner, said by him to be grease heel, swine-pox, chicken-pox, goat-pox and other infectious matter. And this is the mixture that even the profession itself cannot define, that they are injecting into the bodies of perfectly healthy people to prevent a disease that there is not one chance in a thousand they would ever have. And the State, in many instances, is responsible for these outrages, as it hands over to political doctors the keeping of the health of its citizens.

Medicine is not an exact science, and the State does wrong to adopt a medical error and force it upon the people.

Vaccination does not prevent small-pox. The profession even do not claim that much. The most claimed for it is that it modifies the disease.

Jenner says: "I found that some of those who seemed to have undergone the cow-pox afterward took small-pox, and medical men agreed that cow-pox was not to be relied on."

All physicians, even in Jenner's time, did not accept his theories as correct, even though the English government paid him one hundred and fifty thousand dollars for his discovery. Many of the ablest physicians of today utterly repudiate it.

Dr. Copeland, in his Dictionary of Practical Medicine, says: "Vaccination favors the several forms of scrofula."

Prof. Alexander Wilder, one of the most scientific physi-

cians now living, in a special article on Vaccination, says: "It is the infusion of a contaminating element into the system, and after such contamination you can never hope to regain the former purity of the body; thus tainted, the body is made liable to a host of ailments. Consumption follows in the footsteps of vaccination as certainly and as unequivocally as effect follows cause, and wherever it is common to vaccinate, scrofula and tuberculosis are general."

These facts are admitted by English medical authorities, and statistics show that after vaccination became general, and during the twelve years between 1853 and 1865, there was an increase of deaths from consumption of about 230,000 over the preceding twelve years, and during the same period an increase of 100,000 from measles, scarletina, whooping cough and croup.

That syphilis can be so transmitted we have the testimony of no less an authority than Professor Ricord, of France, who states his conclusions in the following language: "At first I repelled the idea that syphilis could be transmitted by vaccination, but today I hesitate no more to proclaim the reality."

In a pamphlet published by Prof. Joseph Jones, of Nashville, Tenn., in 1867, he records the sworn testimony of a large number of eminent physicians showing that hundreds of soldiers in the Confederate army had died of syphilis and gangrene, caused from vaccination. Facts like the above could be quoted by the thousands. Enough are given to show the results of the practice, and that all medical men do not endorse it.

Why then do so many physicians believe in vaccination? Because they have never investigated it personally. Not one doctor in a hundred has ever read Jenner's book. They vaccinate because it is the custom to do so. It is one of the blind

fetiches for which no satisfactory explanation has ever been given. Small-pox is a filth disease, pure and simple. The only and proper way to eradicate it is to teach people cleanliness. It makes its greatest inroads in the abodes of poverty where the sanitary conditions are unfit for human beings. A better and more just economic condition will abolish small-pox, as it will every other disease whose origin is filth.

PART IV.

CHAPTER XV.

An Ounce of Prevention.

DISEASES such as diphtheria, scarlet fever or small-pox are classed as "contagious diseases." It is supposed that contact with a person suffering from any of these so-called contagious diseases is extremely apt to convey the malady to a healthy person; and in consequence, when any disease regarded as contagious presents itself in a family or community, the most unreasoning concern is oftentimes manifested. The case is immediately reported to the health officers, and to prevent the patient's contact with others he is frequently, without consulting either his own wishes or those of his friends, hurried off to some pest-house or hospital. And the motive which prompts the arbitrary and often unduly hasty removal of a patient suffering from any of the so-called contagious diseases is said to be humanitarian. The isolation of the patient, it is said, is necessary to prevent the disease from spreading among others. His presence in the home, or in the community, where others are likely to be brought into contact with him, is a menace, it is alleged, to the public health, and therefore a benign consideration for the health of the many demands that he be isolated even from his nearest friends and conveyed to some institution publicly provided for the reception and treatment of just such cases.

Now we cordially grant that the public health should be jealously guarded, and that the duty of those entrusted with

the care of the people's health is to see to it that everything inimical to good health be, as far as possible, removed from where the people are. Notwithstanding our repugnance at what has seemed to us the harsh and despotic treatment to which the sick poor especially have been subjected by accredited "health officers," in their efforts to stamp out so-called contagious diseases, if we were convinced that such treatment were really necessary to conserve the public health, we should be the last to utter a single word of protest or dissent. But we are not convinced. On the contrary we are sure that the prevailing practice of hurrying off the patient to some pest-house or hospital, and depending on that to prevent the spread of the malady, is worse than useless.

Take for example a case of scarlet fever. The patient is the first in a large community to "come down" with the disease. In his case the disease is not the result of contact with any other scarlet-fever patient, for there is no other case near. He has never been exposed. Whence, then, did the disease come to him? There must be a cause. There is no effect without a cause, and where scarlet fever, measles, small-pox or any infectious or contagious form of disease makes its appearance, we should apply ourselves to an understanding of the cause. Whence, then, comes the disease to the patient in question? It comes from a condition of atmosphere. And that, as has been aptly said, cannot be carried off on a stretcher or in an ambulance. You may remove the scarlet-fever or small-pox patient, but you leave the disease-giving condition of atmosphere behind, and in consequence your removal of the patient has done nothing to take away the cause of danger from others.

Let us suppose that the case of scarlet fever which, for the sake of illustration, we have assumed, has broken out in a poor home—where perhaps a large family is living in two or three small rooms at a cold and wet time of year. The at-

mosphere is chill and damp, and laden with the elements of scarlet fever, or other forms of disease. And shall we prevent the spread of disease in that family by removing to a pest-house the first member of the family who is attacked with it and then, as if we had performed our whole duty, dismissing the matter from our thoughts, as is frequently done? Nay, by simply removing the patient, we have not even touched the cause of the malady. We must direct our attention to the unhealthy atmospheric conditions in which the family is living. We must see to it that the house is thoroughly ventilated, that the cold, damp atmosphere is warmed and dried, and the house filled with dry, fresh air. If, in addition to this, the patient is thoroughly sponged with acetic acid or good strong vinegar, and the air of the sick-room is impregnated with the fumes of that excellent purifier, the best thing possible is accomplished, and the fear of contagion from the patient may be safely dismissed. In the judgment of an eminent authority the room so treated, even with the sufferer in it, would be by far the safest room for the other members of the family to be in, if the other rooms were neglected. Be calm in the presence of any contagious form of disease. Don't lose your self-possession, or imagine that the isolation of your sick one is the one thing needful. Keep cool. Give your attention to the atmosphere in the home. Make it pure and sweet as above indicated, and the danger of contagion or infection will be reduced to almost nothing.

Incipient Consumption.

Consumption in America is woefully common. It is a disease which seems to set the medical profession at defiance. The most renowned medical experts have spent years in laborious effort to discover something by means of which they may arrest this most prevalent and fatal of diseases. Ever and anon it is announced that a specific has been found. But not-

withstanding the acclaim with which these so-called remedies have been heralded in the past, time has but shown their worthlessness, and today the ordinary physician is as powerless to grapple with that formidable malady as he ever was.

The recently much vaunted discovery of Dr. Koch was hailed as a remedy, and from ocean to ocean the consumptive was encouraged to hope that the German chemist had a gospel for him. But, like many others, the Koch "discovery" has seemingly proved to be no discovery at all, and consumption runs riot as before. But notwithstanding the apparently incurable nature of this disease in its advanced stages, in its incipient or early stages it may be cured. Nay, in very many cases it has been cured. Dr. Samuel Thomson, the great apostle of Physio-Medicalism, says in his "New Guide to Health": "I have had a great many cases of this kind (of consumption) and have in all of them, where there was life enough left to build upon, been able to effect a cure." Dr. Thomson is a reputable and eminently trustworthy witness, and in view of his testimony that he had cured many consumptives, it must be conceded that consumption, at least in its incipient stages, may be cured.

But what is the remedy? The most important thing is to raise the inward heat where it needs raising, and to cool those parts which are already burning up with fever. If you could look at the inside of the chest of a consumptive patient, you would see, says Prof. Kirk, "little dark red patches here and there on its inner surface. These are what we call inflammatory patches. If you could place the bulk of a small thermometer in the near neighborhood of one of these dark red patches, you would find that it would indicate above a hundred degrees. They are, in fact, parts of tender tissue 'on fire.'"

"In all instances of what is called bronchitis or pneumonia," the Professor adds, "the inflamed patches are in the front of

the chest, and the back is cold rather than hot." The all-important thing, then, we repeat, is to heat the parts which are too cool and to cool the parts which are already on fire. Take a large, warm bran poultice, not so warm as to burn the skin, but as warm as the patient can comfortably bear, and apply it between the shoulders. Then take a cloth wrung tightly out of cold water, apply it to the chest, and with the hand press it gently all over. And thus while the hot poultice is stimulating and giving life to the lungs at the back, the cold cloth is lowering the flame in the front. Don't be afraid of the cold in front. With a large warm poultice at the back the cold in front will be agreeable to the patient, and not otherwise. The cloth in front need not at first be large. Indeed it may be well to begin with a small cloth, but after a while you will be able not only with safety but with great profit to the patient to apply a large towel.

On any occasion when not feeling as well as usual lengthened seasons of rest in bed and limited food, thereby allowing extra time for repose to heart and lungs, will be helpful.

Beware of well-meant attempts to feed the patient with what is termed good, nourishing diet. As a rule such diet only feeds the disease. The patient's food should consist chiefly of good milk, grains and fruits. No kind of alcoholic stimulant should be thought of, nor whatever would accelerate unduly the circulation in the weak lungs. Let the above treatment be followed and we should look for a speedy cure.

Household Antiseptics.

Instead of using the poisonous antiseptics, such as corrosive sublimate, iodoform, carbolic acid and other agents of a dangerous nature, as good results will be obtained with articles that are always in the household. Hot water at a temperature

of 122 Fah. is one of the best. It is used in the Paris hospitals extensively. Tincture of myrrh is a good local remedy for indolent ulcers and canker sores. Salt and vinegar are excellent if pure. Camphor, either the water or the spirits, is also good.

It is not necessary to use poisons even as antiseptics.

A Friendly Warning.

There are physicians and physicians, but when it comes to needing the advice of a surgeon, a woman especially should be careful to whom she goes for advice. Very often the patient dies under the anesthetic, and is it not about as well to take your chances for life one way as another? And more often the chances are ten to one in favor of the patient if an operation is not resorted to.

The daily papers report many cases where the result of an operation has proved fatal to the patient, but these are only a small per cent of the many thousands which end in the death of the confiding victim.

"Oh, well," you may say, "my doctor is such a nice man, and he would not wrongly advise me."

Just there you may be mistaken, for the wiser he may look, the more ignorant he may be; or the more fine his appearance, the more need there may be for you to be on your guard, as he may have mercenary motives in advising an operation. Then, if you are not suffering everything but death, you had better wait awhile, unless a competent body of physicians tell you that an operation is your only hope of being saved. Most of the cases recorded in the daily papers state that the operation was a simple one. If they were so simple, was there not some doctor, some means by which the trouble might have been cured without resorting to an operation? Surely there was.

Not long ago we witnessed an operation at a large hospital for a tumor of the ovary. When the incision was made and the surgeon was exploring the cavity, he remarked, "Well, she is poor; she has three children now, and I guess she don't need to have any more, so I will just save her any further trouble by taking them both out, although that one is all right." Suppose those children all die in one week of diphtheria. Must the poor mother go through life without an object upon which to place her affection? And in case her husband die also, she may be denied all help or means of support in her old age because she has no children to care for her. There are many things to consider, not the least of which is the fact that the women who undergo operations are disposed to become unbalanced mentally, as many of them cannot recover from the great shock their nervous system receives.

We feel we cannot give our readers too much caution about these operations. Not long ago there came to our notice the case of a young woman who went to a traveling specialist for nervous trouble. In his little dark room, in the hotel where he was stopping, and without asking her to remove or loosen her clothing, he proceeded to operate upon her for rectal trouble. He had a chamber maid, who was passing along the hall at the time, and who was an unsophisticated country girl, come in and administer the chloroform. He said that he always called in the porter or somebody for the sake of decency. Imagine having a hotel porter or chambermaid at a surgical operation. When this man removed the cap from the nose of his victim, strange to say, she was dead. Then, without loosening her clothing or raising the window and giving her air or doing anything to restore her, he went post-haste for some brandy and some one to call another physician. His actions were doubly criminal, as a post-mortem examination

revealed the fact that the young lady was perfectly healthy and did not need an operation, and in the second place, he might have saved her if he had done anything to resuscitate her.

Now, we do not wish our readers to be under the impression that there are not necessary operations, but we do wish to advise them against unnecessary ones. For, if you do not meet the fate of some patients, you may be led to believe you have undergone an operation, when the fact is that you have not. But in either case, your pocket-book must suffer, and why pay for something you do not need, and which may injure you? Intelligent women should be educated to take proper care of themselves, and if they conform to the laws of Nature, there will be less excuse for surgical operations.

Some Personal Reflections.

Dear reader, no excuse is needed for offering you suggestions for your physical welfare. But what excuse can you offer yourself for refusing to learn facts concerning your own body? What excuse have you for allowing disease to encroach upon you through ignorance or disregard of Nature's laws? What excuse have you in time of sickness for delaying your own recovery by being unable to intelligently aid Nature in her efforts to restore your body to health? If your excuse is that your father and grandfather lived their allotted time without such knowledge, then you should seek some calcareous region and strive to acquire a fossil body to correspond with your fossil mind. If your excuse is that your body can take care of itself as long as you have a good time in this world, then we should say, enjoy yourself while you can, but get out of the way when sickness comes upon you, and don't make the lives of others miserable by your self-inflicted invalidism.

While your soul hovers about this world it has a marvelous

house to live in, whose organs are like the rooms in a magical palace. Don't be content to sit quietly in one corner in an easy chair, but investigate; learn what a magnificent structure your body is; learn how every apartment is equipped for use; realize how delicate is the handiwork and how easily it can be destroyed. Perhaps such an investigation will cause you to be more careful whom you admit inside your door. Perhaps you will decide to debar such tramps and loafers as tobacco and alcohol and treacherous narcotics.

Don't sit still and entertain visitors indiscriminately. Highly flavored foods and their indigestible companions may for a time afford you gustatory enjoyment; but some day you may awaken to the fact that important parts of your palace have been destroyed for the sake of entertaining such company. And when you realize your mistake, when disease is evident, don't permit some blundering carpenter-physician to strive to repair the damage by destroying other parts of your palace by the administration of poisons. The chances are he will succeed only in destroying or weakening the usefulness of other apartments. Nature alone is the skillful repairer of damage to your body. Aid her in every way possible. And in case of sickness don't open the door of your body to receive whatever may be thrown into it. If you do not understand the laws of your own body and do not know how to aid Nature, then, and then only, send for a physician; but let him be a follower of Nature and not a believer in the false doctrine that disease must be poisoned out of the system.

THE END.

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